Aluminum statistical review for 1990

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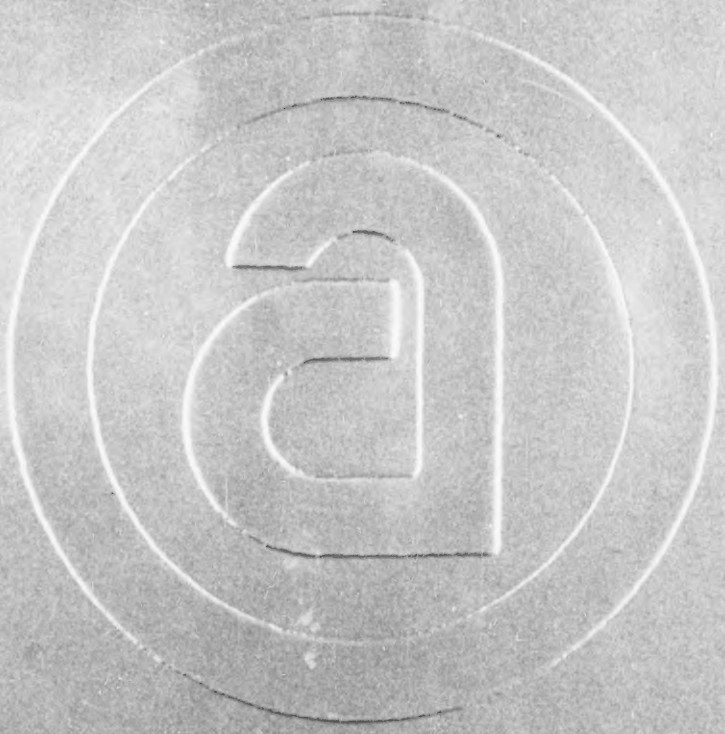

Aluminum statistical review for 1990

Issued in 1991

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Contents

The Aluminum Association does not warrant the accuracy or completeness of any data in this Review. All data contained herein are subject to revision.

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Introduction to Aluminum Statistics

ABOUT THE REVIEW

The Aluminum Association's Statistical Review for 1990 assembles in one place the most important statistical data available on the aluminum industry. It includes information on every cycle of the aluminum production process, from primary aluminum to markets for finished goods to the recovery of aluminum scrap.

The Aluminum Association, Inc., representing the United States aluminum industry, is the primary source for statistics, standards and other information on aluminum and the industry.

The Review is divided into five major sections: Shipments, markets, supply, U.S. foreign trade, and world statistics. Each section is preceded by an introduction and description summary of the tables that follow. In addition, each graph or table has a description and highlights. The Review shows detailed shipment figures for 23 separate product categories. A glossary of industry terms are appended as well.

Capsule Review

Millions of Pounds	1990	1989	% Change
Total Supply	17,334	16,374 r	5.9
Primary Production	8,925	8,885	0.4
Primary Capacity (year-end)	9,010	9,010	—
Net Shipments to Major Markets			
Building & Construction	2,664	2,853 r	-6.6
Transportation	2,911	3,192 r	-8.8
Consumer Durables	1,103	1,200 r	-8.1
Electrical	1,309	1,462 r	-10.5
Machinery & Equipment	979	962 r	1.8
Containers & Packaging	4,755	4,656 r	2.1
Other	571	581 r	-1.7
Total Domestic Shipments	14,292	14,906 r	-4.1
Exports	2,494 e	2,336 e	6.8
Total Net Shipments	16,786	17,242 r	-2.6
Statistical Adjustment	-1,021	-835 r	
Total Net Shipments	15,765	16,407 r	

r - revised
e - estimated

This 1,083-foot long cylinder at the Leonardo da Vinci Airport near Rome, Italy was fabricated from more than 100 tons of aluminum sheet. The aluminum-clad tube serves as an arrival station for train passengers traveling the 17 miles between downtown Rome and the airport.

1990 Highlights

14,292 million pounds of aluminum were shipped to U.S. markets in 1990, down 4.1 percent from the 1989 level of 14,906 million pounds. Aluminum exports of ingot and semifabricated products, increased 6.8 percent in 1990 to 2,494 million pounds.

Total aluminum shipments,* including exports, fell in 1990 to a level of 16,786 million pounds, a decrease of 2.6 percent from 1989 shipments of 17,272 million pounds.

Total aluminum imports into the U.S. (including scrap) increased to 3,718 million pounds in 1990, a 7.0 percent rise over 1989 levels. Imports of aluminum ingot totaled 2,121 million pounds in 1990, a 3.9 percent increase from 1989 imports of 2,041 million pounds. Total imports of aluminum mill products in 1990 were 1,012 million pounds, a 7.4 percent jump from 1989 import levels of 942 million pounds.

*"Net" shipments exclude intra-industry shipments for further fabrication. It is the most accurate measure of industry output to markets because it eliminates duplication. Reported receipts of aluminum for further processing are subtracted.

The United States supply of aluminum in 1990 rose 5.7 percent to a level of 17,334 million pounds. Domestic primary production increased 0.4 percent to 8,925 million pounds, imports of aluminum ingot and mill products were up 5.0 percent to 2,121 million pounds and domestic recovery from scrap accounted for 5,276 million pounds, a 16.5 percent increase from 1989.

Containers and Packaging continue to be the industry's largest market in 1990 with a volume of 4,755 million pounds and accounting for 28.3 percent of total shipments. This market increased 2.1 percent from the 1989 level of 4,656 million pounds.

The second largest market for 1990 was **Transportation**, totaling 2,911 million pounds and accounting for 17.3 percent of the total shipments, decreasing 8.8 percent from 1989. In the **Building and Construction** market, 1990 shipments of 2,664 million pounds decreased 6.6 percent from 1989 levels.

The **Electrical** market showed a decrease of 10.5 percent from 1989 with 1990 shipments totaling 1,309 million pounds. **Consumer Durables** shipments dropped 8.1 percent to 1,103 million pounds in 1990.

Shipments to the nonelectrical **Machinery and Equipment** market increased to 979 million pounds, a rise of 1.8 percent.

Acknowledgements

The data for this **REVIEW** were developed by the Statistical and Market Research Committee of The Aluminum Association, Inc. along with the cooperation of the following organizations: Can Manufacturers Institute; Bureau of the Census, U.S. Department of Commerce; and the Bureau of Mines, U.S. Department of the Interior

The **Aluminum Statistical Review** for 1990 was compiled and edited by Nicholas A. Adams, Manager, Product and Market Statistics.

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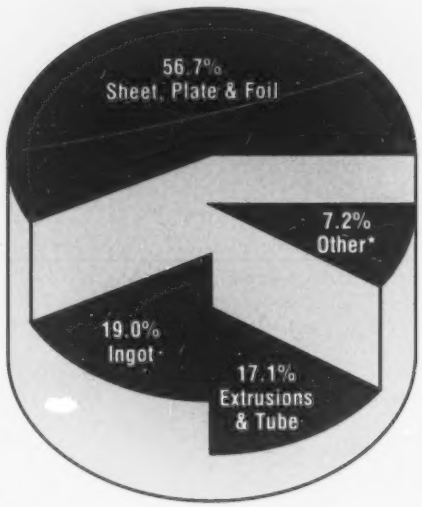
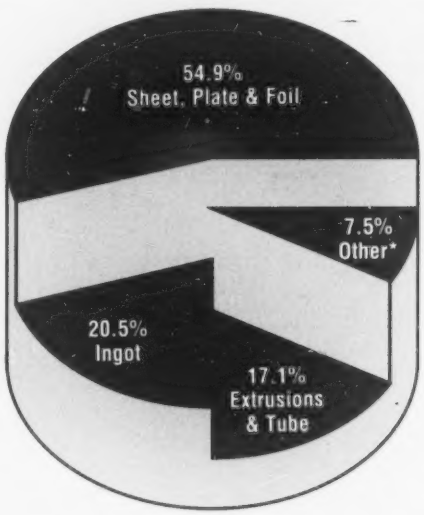
This edition covers, in most tables, the years 1980-1990. Data on the years 1960-1980 are available in a companion publication: **"Aluminum Statistical Review-Historical Supplement."** Contact The Aluminum Association for further information.

U.S. Aluminum Industry Shipments

Percentage Distribution by Major Products: 1990



Percentage Distribution by Major Products: 1989



*Other	1990	1989
Conductor	3.7	4.4
Rod, Bar, Wire	1.8	1.4
Forgings & Impacts	1.0	1.0
Powder	0.7	0.6

U.S. INDUSTRY SHIPMENTS DOWN 3.9 PERCENT

Total net shipments in 1990, including imports, amounted to 15,765 million pounds down 3.9 percent from the 16,406 million pounds shipped in 1989.

The adjacent pie chart shows that the largest product category of sheet, plate and foil represented 56.7 percent of total shipments in 1990 (54.9% in 1989). Ingot for castings, destructive uses and exports accounted for 19.0 percent (20.5% in 1989) and extruded products and tube shipments were 17.1 percent (17.1% in 1989) of total shipments.

Excluding net imports, sheet and plate and foil volume of 8,375 million pounds were down 1.5 percent from 1989. Extruded products and tube shipments totaled 2,522 million pounds, down 4.9 percent from 1989.

Total shipments to U.S. consumers, at 13,274 million pounds, were down 5.7 percent from the 1989 level of 14,071 million pounds. Estimated exports increased 3.8 percent to a 1990 level of 2,491 million pounds.

DESCRIPTION:

Total aluminum industry shipments presented on the next page are net shipments to U.S. consumers and for export. To avoid duplication, the figures do not include any intra-industry shipments for further fabrication into mill products. Imported ingot and mill products shipped to U.S. consumers are included.

Net shipments of ingot include domestic and import shipments and represent primary and secondary ingot shipments for export, castings and destructive uses. Net shipments of mill products are shown separate for domestic and import. Mill product imports to aluminum producers are not included in total industry shipments. These imports are further processed by the producer into another mill product which is included in the total.

Imports to consumers are included in total industry shipments. These consumers fabricate the aluminum into a finished product. Imported mill products are net of receipts by producers of mill products. Imported mill products data include reimports of metal exported for processing and returned for further processing.

The pie charts illustrate the distribution of net shipments of aluminum ingot and mill product groups during 1990 and 1989. They include net shipments of ingot and domestic mill products but exclude imported mill products, because import data are not available in the same detail as domestic shipments of mill products. The distribution is based on data shown on pages 6 and 7. The imported mill products are shown on page 5.

For information on years prior to 1980 see The Aluminum Statistical Review-Historical Supplement.

Total Industry Shipments

Millions of Pounds

Net Shipments	1990 % Total	1990 Amount	1989 % Total	1989 Amount	1989-1990 % Change	1980-1990 %Annual Growth [3]
Total	100.0	15,765.2	100.0	16,406.4 r	-3.9	2.0
Ingot	17.7	2,797.5	19.3	3,164.6 r	-11.6	-1.4
Mill Products						
U.S. Producers	75.9	11,959.6	75.0	12,303.8 r	-2.8	2.3
Imports [4]	6.4	1,008.1	5.7	938.0	7.5	12.6
U.S. Exports	15.8	2,490.8	14.2	2,335.4	6.7	3.8
U.S. Consumers [1]	84.2	13,274.4	85.8	14,071.0 r	-5.7	1.8

Total Industry Shipments 1980-1990

Millions of Pounds

	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
Net Shipments											
Total	15,765.2	16,406.4 r	16,423.2	16,380.0	15,339.9	15,272.3	15,521.3	14,153.9	12,505.1	13,814.4	14,351.0
Ingot	2,797.5	3,164.6 r	3,180.7	3,141.0	2,969.8	3,364.7	3,579.5	3,044.8	3,090.3	3,236.4	3,723.8
Mill Products											
U.S. Producers	11,959.6	12,303.8 r	12,272.6	12,233.9	11,416.4	11,091.5	11,075.9	10,577.5	9,026.8	10,337.8	10,484.9
Imports [4]	1,008.1	938.0	969.9	1,005.1	953.7	816.1	865.9	531.6	388.0	240.2	142.3
U.S. Exports	2,490.8 e	2,335.4 e	1,733.5	1,255.6	910.8	1,204.2	1,076.5	1,240.9	1,294.7	1,370.0	2,193.3
U.S. Consumers [1]	13,274.4	14,071.0 r	14,689.7	15,124.4	14,429.1	14,068.1	14,444.8	12,913.0	11,210.4	12,444.4	12,157.7

Mill Products Imports 1980-1990

Millions of Pounds

	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
Total Imports [1]											
Total	1,008.1	938.0	969.9	1,005.1	1,088.9	1,020.7	1,089.7	618.3	455.6	303.9	168.1
Sheet & Plate	865.6	760.9	732.7	765.3	836.0	770.1	884.5	536.1	414.8	247.1	126.1
Rod & Bar	35.8	46.9	98.4	117.3	128.9	128.7	82.3	27.4	10.1	34.2	16.3
Other	106.7	130.2	138.8	122.5	124.0	121.9	122.9	54.8	30.7	22.6	25.7
Imports to Consumers [1]											
Total	n/a	674.3	904.6	901.1	953.7	816.1	865.9	531.6	388.0	240.2	142.3
Sheet & Plate	n/a	528.2	727.3	732.6	798.4	680.3	746.6	477.3	357.6	205.6	115.7
Rod & Bar	n/a	19.3	44.8	54.8	51.3	24.1	1.8	9.3	1.2	12.3	9.1
Other	n/a	126.8	132.5	113.7	104.0	111.7	117.5	45.0	29.2	22.3	17.5
Imports to Producers [2]											
Total	n/a	263.7	65.3	104.0	135.2	204.6	223.3	86.7	67.6	63.7	25.8
Sheet & Plate	n/a	232.7	5.4	32.7	37.6	89.8	137.9	58.8	57.2	41.5	10.4
Rod & Bar	n/a	27.6	53.6	62.5	77.6	104.6	80.5	18.1	8.9	21.9	7.2
Other	n/a	3.4	6.3	8.8	20.0	10.2	5.4	9.8	1.5	0.3	8.2

Detail may not add due to rounding

(1) Includes reimports of metal exported for processing and returned for further processing.
(2) Product detail estimated by the Aluminum Association.
(3) Annual growth rate calculated by straight line least squares method.
(4) Figures include total imports beginning in 1987.
(e) Export figures contain estimated adjustments to account for an overstatement of U.S. export statistics published by the Bureau of the Census.
n/a Not available
(r) Revised

For information prior to 1980, see The Aluminum Statistical Review — Historical Supplement.

Source: U.S. Department of Commerce, Bureau of the Census

Net Shipments of Ingot and Mill Products 1955-1990
Excludes Mill Product Imports to Consumers

Millions of Pounds

Year	Total aluminum	Total ingot	Primary ingot	Secondary ingot [3] [4]	Extrusion ingot [5]	Total mill products	Sheet and Plate nonheat treatable	Sheet and Plate heat treatable	Foil	Forgings [2] Impacts
1955	3,997.2	1,205.4	509.9	695.5	-	2,791.8	1,049.6	295.0	198.2	70.3
1956	4,109.3	1,223.5	520.1	703.4	-	2,885.8	1,050.6	327.0	190.5	75.7
1957	3,839.2	1,161.6	458.2	703.4	-	2,677.6	943.8	248.7	204.0	64.3
1958	3,571.1	974.0	368.6	605.4	-	2,597.1	944.4	209.1	199.6	50.8
1959	4,961.1	1,575.0	751.4	803.4	20.2	3,386.1	1,284.6	231.3	252.6	53.8
1960	4,657.7	1,608.6	852.3	665.2	91.1	3,049.1	1,203.4	184.8	249.0	50.1
1961	4,881.7	1,536.6	690.7	701.9	144.0	3,345.1	1,256.3	237.0	270.6	56.4

Year	Total aluminum	Total ingot	Primary ingot	Secondary ingot [3] [4]	Extrusion ingot [5]	Total mill products	Sheet NHTS	Sheet HTS	Plate NHTS	Plate HTS	Foil	Forgings [2] Impacts
1962	5,669.9	1,858.6	768.9	848.7	241.0	3,811.3	1,361.8	157.3	108.9	82.9	297.4	79.4
1963	6,289.8	2,032.6	859.2	885.9	287.5	4,257.2	1,626.5	165.2	126.5	77.1	322.3	84.0
1964	7,063.5	2,228.6	946.5	995.1	287.0	4,834.9	1,903.0	167.8	124.2	79.0	356.7	88.4
1965	8,016.7	2,337.3	1,069.3	1,126.9	141.1	5,679.4	2,179.8	223.0	109.0	97.0	395.7	96.4
1966	8,797.7	2,340.2	987.2	1,190.4	162.6	6,457.5	2,382.4	281.5	125.7	147.2	432.2	139.2
1967	8,837.0	2,486.4	1,063.6	1,189.1	233.7	6,350.6	2,385.6	227.4	119.5	135.6	449.4	165.2
1968	9,861.8	2,694.8	1,154.2	1,284.3	256.3	7,167.0	2,910.8	250.2	103.5	140.0	508.7	105.7 62.1
1969	10,717.5	3,051.2	1,569.4	1,264.9	216.9	7,666.3	3,299.3	200.8	105.8	120.9	559.9	97.3 59.3
1970	9,952.5	2,594.5	1,307.0	1,126.0	161.5	7,358.0	3,376.4	126.7	94.1	91.4	558.7	71.4 49.0
1971	10,267.3	2,428.5	1,004.5	1,187.7	236.3	7,838.8	3,691.1	121.6	75.6	87.8	585.6	69.5 28.7
1972	11,880.0	2,633.8	1,000.7	1,467.9	165.2	9,246.2	4,431.4	160.6	78.8	97.1	673.2	95.3 27.5
1973	14,568.3	3,668.4	1,615.7	1,757.8	294.9	10,899.9	5,308.7	203.3	109.7	119.6	774.4	114.8 27.6
1974	13,639.4	3,178.3	1,503.5	1,457.4	217.4	10,461.1	5,087.9	216.5	157.2	164.6	748.2	112.8 25.5
1975	9,804.2	2,377.6	1,275.0	1,019.1	83.5	7,426.6	3,676.8	121.0	143.2	111.2	611.8	82.8 14.4
1976	12,245.6	2,540.0	1,108.5	1,227.6	203.9	9,705.6	5,167.0	191.9	108.4	106.5	772.3	83.1 17.1
1977	12,831.3	2,388.3	768.5	1,443.6	176.2	10,443.0	5,505.5	300.4	104.2	130.3	805.6	105.7 15.6
1978	14,018.3	2,672.3	923.3	1,658.7	90.3	11,346.0	5,785.4	350.0	116.1	157.1	876.6	115.7 20.7
1979	14,517.3	3,287.0	1,281.2	1,830.7	175.1	11,230.3	5,632.4	365.4	114.9	183.5	887.0	127.4 31.4
1980	14,208.7	3,723.9	1,958.3	1,582.1	183.5	10,484.9	5,301.8	247.3	92.2	220.9	830.4	107.2 26.0
1981	13,574.2	3,236.4	1,485.3	1,704.5	46.6	10,337.8	5,504.0	200.9	106.1	167.1	850.4	109.2 29.8
1982	12,117.2	3,090.4	1,508.0	1,517.3	65.1	9,026.8	4,976.9	150.1	70.9	131.2	731.2	78.9 25.3
1983	13,622.4	3,044.9	1,438.5	1,499.2	107.2	10,577.5	5,952.4	181.0	57.5	145.4	826.4	88.6 27.6
1984	14,655.4	3,579.5	1,782.6	1,768.2	28.7	11,075.9	5,866.5	221.2	81.5	173.4	852.7	114.9 29.3
1985	14,456.2	3,364.8	3,148.9		215.9	11,091.5	5,964.3	220.1	74.4	183.4	812.8	108.3 40.4
1986	14,386.2	2,969.8	2,667.9		301.9	11,416.4	6,135.5	246.1	72.7	175.1	860.5	97.3 47.2
1987	15,374.9	3,141.0	3,221.2		-80.2	12,233.9	6,862.5	247.7	74.1	194.3	866.3	108.3 48.0
1988	15,453.2	3,180.6	3,256.8		-76.2	12,272.6	6,789.4	296.0	89.5	208.6	949.5	118.6 47.3
1989	15,486.4 r	3,164.6 r	3,337.6		-173.0 r	12,303.8 r	7,046.2	256.2	75.0	234.2	887.1	118.6 40.3
1990	14,757.1	2,797.5	2,701.5		96.1	11,959.6	6,998.6	245.8	67.3	202.4	860.4	114.7 39.0

Detail may not add due to rounding

(1) A small amount of rolled structural shapes is included with rod & bar in 1954-1961 and with extruded shapes in subsequent years.
(2) Through 1954 forgings and impacts were not reported. They were included in appropriate forging stock product categories, mainly rolled rod & bar.
(3) 1954-1961 Secondary ingot included extrusion ingot.
(4) Secondary ingot includes shipments by integrated companies, secondary smelters and imports.

Millions of Pounds

Rod & Bar	Extruded Shapes: Soft alloys	Extruded Shapes: Hard alloys	Drawn tube	Welded tube	Wire, bare: Non Conductor	Wire, bare: Conductor	ACSR & bare cable	Insul. or cov. wire & cable	Powder & Paste
109.9	636.6	45.8	67.2	25.5	57.7	4.0	156.9	39.5	35.7
117.8	641.0	63.5	60.2	27.6	54.4	5.5	187.4	56.1	28.4
					Wire, bare				
116.9	645.6	61.2	56.2	26.7	50.4		181.5	50.3	28.2
75.6	693.5	49.8	59.8	18.7	44.2		174.8	51.0	25.6
124.6	931.3	47.9	72.9	30.0	64.6		196.7	60.8	34.9
92.9	812.1	38.9	60.3	25.9	55.4		183.1	60.4	32.8
100.8	884.1	50.5	64.0	35.4	52.6		232.8	68.6	35.9

	Extruded rod & bar: Soft	Extruded rod & bar: Hard	Extruded shapes (1): Soft	Extruded shapes (1): Hard	Extruded pipe & tube: Soft	Extruded pipe & tube: Hard	Drawn tube	Welded tube	Wire, bare	ACSR & bare cable	Insul. or cov. wire & cable	Powder & Paste
136.4	54.8	12.6	782.4	44.8	139.5	5.2	78.4	40.7	55.0	253.2	76.9	43.7
121.0	61.1	10.2	870.7	54.2	150.3	6.1	65.5	52.1	57.6	272.3	83.2	44.8
							Drawn tube					
							Soft	Hard				
146.8	70.5	12.6	1,016.4	41.0	158.2	4.3	60.3	6.6	77.4	63.1	309.2	103.2	46.3
159.7	68.2	14.8	1,224.3	57.5	174.9	2.7	78.8	3.7	93.7	82.6	429.3	129.4	58.8
151.9	67.2	21.5	1,335.3	97.7	190.6	6.9	92.2	7.5	91.2	103.2	507.4	165.3	111.4
143.0	43.6	18.4	1,222.7	84.5	157.4	8.5	81.7	7.5	87.8	97.7	506.2	174.7	234.0
130.0	37.3	21.1	1,363.0	70.0	170.2	11.8	84.6	8.0	106.9	100.4	492.2	214.0	276.4
144.3	42.2	21.1	1,460.2	72.3	196.1		81.8	7.2	101.6	94.7	475.1	250.5	276.0
110.0	39.7	16.8	1,369.2	43.4	176.9		80.7	3.5	92.5	93.5	499.5	260.2	204.5
102.2	37.7	16.4	1,550.6	42.1	186.1		81.6	2.7	96.3	96.8	481.8	317.1	167.5
181.5	40.5	16.6	1,838.4	44.6	193.8		89.1	3.7	116.6	106.6	453.6	371.0	226.4
289.4	48.3	18.9	2,038.6	72.2	225.6		105.7	4.6	121.7	124.1	490.2	445.2	257.4
268.4	48.8	14.9	1,807.3	66.4	219.4		110.4		116.8	131.0	541.4	446.3	177.2
185.8	55.7	12.1	1,264.3	47.7	135.9		65.7		61.6	66.3	425.1	246.3	98.9
279.9	69.9		1,661.8	28.9	188.8		98.0		94.2	79.9 *(6)*	321.4	304.1	132.4 *(7)*
145.5	82.5		1,845.5	65.4	183.8		104.3		114.5	85.3 *(6)*	351.0	376.7	121.1 *(7)*
266.5	113.7		2,021.9	93.2	176.8		106.7		110.4	89.3	390.3	419.6	135.9
300.0	100.9		1,990.1	104.2	151.9		95.9		83.5	91.3	417.4	427.5	125.6
377.6	113.0		1,791.2	107.3	140.7		80.7		96.8	72.2	399.8	363.2	116.6
272.0	102.9		1,732.9	69.9	127.3		74.6		114.2	68.3	378.7	321.6	107.7
190.4	74.5	19.4	1,568.1	48.2	89.5	11.4	60.9		47.9	50.8	345.2	276.0	80.0
187.1	89.2	25.4	1,859.5	55.2	122.2	14.3	65.2		56.4	54.9	357.4	333.3	78.7
201.2	91.8	31.0	2,138.8	88.0	154.1	22.6	56.4		59.9	54.3	346.0	393.8	98.7

Drawing Stock	Rod & bar rolled or extruded: Soft	Rod & bar rolled or extruded: Hard			Pipe & tube extruded or drawn: Soft	Pipe & tube extruded or drawn: Hard					
27.2	81.3	110.0	2,285.7	67.5	238.6	10.6	*(8)*	86.2	277.0	396.2	107.3
8.9	99.2	115.7	2,385.7	72.0	269.3		*(8)*	104.8	233.8	396.1	96.2
24.6	109.2	113.5	2,411.9	70.2	272.8		*(8)*	110.7	219.9	407.7	92.1
-33.0	104.6	117.9	2,340.3	82.8	283.4	17.7	*(8)*	111.5	276.4	381.7	90.3
-76.8	75.5 r	108.0	2,285.7 r	79.4 r	260.6	25.7	*(8)*	111.8	297.0	387.2	92.0
38.8	50.6	95.9	2,166.2	64.7	272.8	18.7	*(8)*	85.6	222.5	317.4	98.1

(5) Extrusion ingot includes primpary and secondary metal shipments by integrated companies, non-integrated companies, secondary smelters and imports. Includes exports and overstated domestic shipments due to insufficient reporting of receipts.
(6) Bare wire estimated by The Aluminum Association from partial year reporting.
(7) Powder, nec included for only nine months of 1976 and excluded entirely for 1977.
(8) Welded tube included with aluminum sheet.
(r) Revised

SOURCE: U.S. Department of Commerce, Bureau of the Census

For information prior to 1955, see The Aluminum Statistical Review - Historical Supplement

Distributor Shipments

DISTRIBUTOR SHARE 34.3 PERCENT

During 1990, distributors captured 34.3 percent of their available market. Total U.S. shipments of mill products, excluding direct mill uses, was 4,535 million pounds, down 1.7 percent from 1989. Distributor shipments at an estimated 1,554 million pounds were down 2.0 percent from a year ago.

DESCRIPTION:

The table shows line distributor shipments for the years 1980-1990. Also shown are estimates of the total market in which general line distributors are participants. This is labeled Total U.S. Shipments, excluding Direct Mill Uses.

For information on years prior to 1980, see The Aluminum Statistical Review-Historical Supplement.

Direct mill uses are excluded because these end product manufacturers do not buy from distributors. In some cases, producers make final products. These uses include residential siding, extruded shapes for all building products, furniture tube, conduit, irrigation pipe, can stock and exports. Total U.S. shipments, excluding direct mill uses thus differ from total aluminum industry shipments of mill products by the amount of direct mill uses and products not generally handled by metal service centers (foil, electrical conductor, forgings and powder).

Distributors Shipments 1980-1990

Thousands of Pounds

	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
Distributor Shipments											
Total	1,554	1,586	1,643	1,597	1,465	1,389	1,411	1,285	948	1,200	1,274
Sheet	1,010	1,014	1,083	1,068	959	907	941	864	601	783	751
Plate	169	186	178	160	155	152	146	119	104	120	155
Rod, Bar & Wire	158	163	154	157	152	138	134	131	106	140	161
Extruded Shapes	151	156	159	151	144	138	132	121	94	107	151
Pipe & Tube	66	67	69	61	55	54	58	50	43	50	56
Total U.S. Shipments excluding Direct Mill Uses											
Total	4,535	4,614 r	4,881 r	5,038 r	4,525	4,297	4,475	3,990	3,098	3,745	3,745
Sheet	2,752	2,815	2,945 r	3,055 r	2,724	2,594	2,758	2,651	1,955	2,399	2,254
Plate	289	319	286 r	272 r	270	273	256	190	189	240	266
Rod, Bar & Wire	271	257 r	382 r	454 r	366	318	384	329	275	331	379
Extruded Shapes	998	1,000 r	1,025	1,038 r	946	914	890	675	563	632	699
Pipe & Tube	225	223	243	219	219	198	187	145	116	143	147
Distributor Share (percent)											
Total	34.3	34.4 r	33.7 r	31.7 r	32.4	32.3	31.5	32.2	30.6	32.0	34.0
Sheet	36.7	36.0	36.8	35.0 r	35.2	35.0	34.1	32.6	30.7	32.6	33.3
Plate	58.5	58.3	62.2 r	58.8 r	57.4	55.7	57.0	62.6	55.0	50.0	58.3
Rod, Bar & Wire	58.3	63.4 r	40.3 r	34.6 r	41.5	43.4	34.9	39.8	38.5	42.3	42.5
Extruded Shapes	15.1	15.6 r	15.5	14.5 r	15.2	15.1	14.8	17.9	16.7	16.9	21.6
Pipe & Tube	29.3	30.0	28.4	27.9	25.1	27.3	31.0	34.5	37.1	35.0	38.1

NOTE: In this table, rod, bar and wire includes rod and bar; pipe and tube includes extruded, drawn and welded pipe and tube.

Source: Estimated by the Statistical and Market Research Committee

Shipments of Castings

SHIPMENTS DOWN 12.7 PERCENT

There were an estimated 1,920 million pounds of aluminum castings shipped during 1990, a decrease of 12.7 percent from the previous year's revised total of 2,200 million pounds.

This table shows shipments of aluminum castings separately for sand, permanent mold and die castings, both for sale and own use, through the year 1983. Permanent mold shipments for sale and own use were combined in 1984. Own use shipments are for captive consumption in the producers' end products.

Ingot requirements for the castings' shipments shown in this table are part of the net ingot shipments shown on pages 5 & 6.

Shipments of Castings 1963-1990

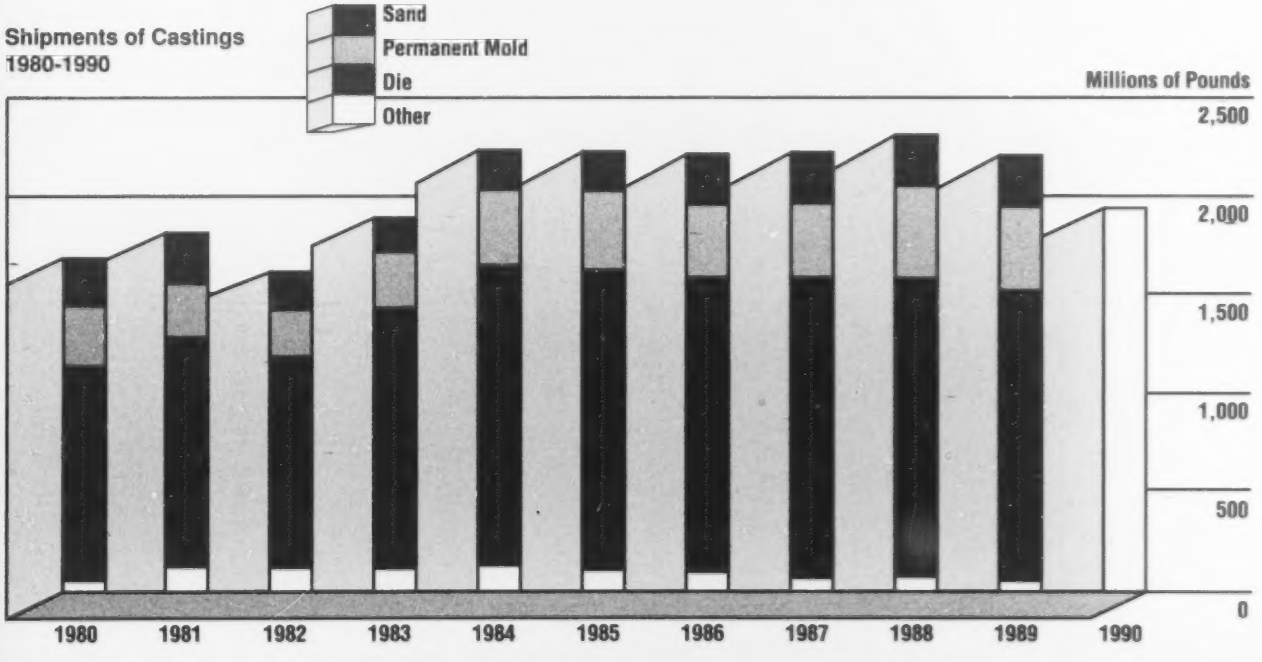
Millions of Pounds

Year*	Total Castings	Sand Castings for sale	Sand Castings own use	Permanent & Semi-permanent Mold Castings for sale	Permanent & Semi-permanent Mold Castings own use	DieCastings for sale	DieCastings own use	Other
1963	1,209.3	160.1	42.1	169.6	159.3	281.2	390.4	6.6
1964	1,257.2	168.9	60.6	179.3	137.4	312.6	386.3	12.1
1965	1,416.7	193.6	72.7	185.2	134.8	391.3	431.7	7.4
1966	1,654.1	220.6	68.0	233.3	156.1	478.7	477.9	19.5
1967	1,488.7	155.3	74.1	203.6	126.8	472.2	434.7	22.0
1968	1,615.2	148.9	58.7	201.5	158.7	510.5	518.3	18.6
1969	1,731.0	155.8	59.5	245.5	160.0	510.9	573.7	25.6
1970	1,541.9	127.0	65.5	188.7	132.3	472.3	530.7	25.4
1971	1,616.8	122.7	62.4	200.2	118.3	500.5	595.4	17.3
1972	1,915.6	158.8	62.4	236.6	143.8	595.8	685.8	32.4
1973	2,113.2	184.1	65.9	247.6	147.8	680.0	735.4	52.4
1974	1,855.4	200.4	58.1	220.1	114.6	617.3	585.5	59.4
1975	1,455.2	146.5	42.9	159.7	90.7	461.4	496.1	57.9
1976	1,971.1	170.3	41.3	203.4	121.8	606.5	721.7	106.1
1977	2,153.4	186.6	33.3	228.0	145.2	682.6	763.0	114.7
1978	2,286.8	210.9	34.9	238.5	148.6	799.8	718.1	136.0
1979	2,302.8	245.5	33.2	265.4	142.2	853.1	663.6	99.8
1980	1,689.8	200.0	33.1	217.2	105.9	633.8	429.2	70.6
1981	1,819.8	207.3	30.8	209.2	82.3	704.1	452.7	133.4
1982	1,605.3	159.0	19.2	161.9	77.2	624.2	434.0	129.8
1983	1,898.1	156.3	10.2	211.8	90.5	812.9	493.3	123.1
1984	2,232.8	183.3	12.6	388.7	(1)	932.9	583.0	132.3
1985	2,229.8	188.7	15.3	390.7	(1)	923.5	596.8	114.8
1986	2,204.8	197.6	25.8	390.7	(1)	886.3	601.9	102.5
1987	2,220.2	227.3	24.0	385.2	(1)	892.5	614.8	76.4
1988 r	2,316.2	225.9	28.3	474.8	(1)	919.7	587.8	79.7
1989 r	2,200.0	219.0	29.4	431.2	(1)	890.1	569.0	61.3
1990 e	1,920.0	n/a	n/a	n/a	(1)	n/a	n/a	n/a

r - revised e - estimated
na - not available at time of publication
(1) Combined with shipments for sale

Source: U.S. Department of Commerce, Bureau of the Census
(*) Prior to 1963, see the Aluminum Statistica Review - Historical Supplement

Shipments of Castings 1980-1990



Market Shipment Highlights—1990

SHIPMENTS DOWN 2.6 PERCENT
Total industry shipments of aluminum in 1990 decreased to a level of 16,786 million pounds, down 2.6 percent from the volume of 17,242 million pounds in 1989. Total domestic shipments decreased 4.1 percent while exports rose 6.8 percent.

The largest increase occurred in the area of **Containers & Packaging**, up 2.1 percent from 1989.

Containers and Packaging continue as the industry's largest market in 1990 with a volume of 4,755 million pounds, or 28.3 percent of total shipments. Shipments for metal cans rose 2.6 percent to a total of 4,026 million pounds. Semirigid food containers, household and institutional foil, caps & closures, collapsible tubes and many flexible packaging uses are other important components in this market.

Building and Construction, at 2,664 million pounds, decreased 6.6 percent from a 1989 volume of 2,853 million pounds. Included in this market are residential, industrial, commercial, farm and highway applications as well as mobile homes.

Shipments to the **Transportation** market decreased to a volume of 2,911 million pounds, 8.8 percent less than 1989. Included in this market are passenger cars, trucks and buses, trailers and semitrailers and recreational vehicles.

Electrical market applications showed a 10.5 percent decline to 1,309 million pounds in 1990. Wire and cable products fell 22.3 percent.

Shipments to the **Consumer Durable** goods market experienced an 8.1 percent decrease to a volume of 1,103 million pounds. Uses such as large appliances and air conditioning showed decreases.

Shipments to the nonelectrical **Machinery and Equipment** market of 979 million pounds increased 1.8 percent over 1989 levels and accounted for 5.8 percent of the total. Uses include agricultural, contruction and industrial machinery, irrigation pipe, ladders, fasteners and other general industrial equipment.

Exports of aluminum rose again in 1990, increasing 6.8 percent to an estimated 2,494 million pounds or 14.9 percent of total shipments.

The **average annual growth rate*** for aluminum shipments in the 1980-1990 period was 2.8 percent.

(*) Annual rate calculated by straight line least square method.

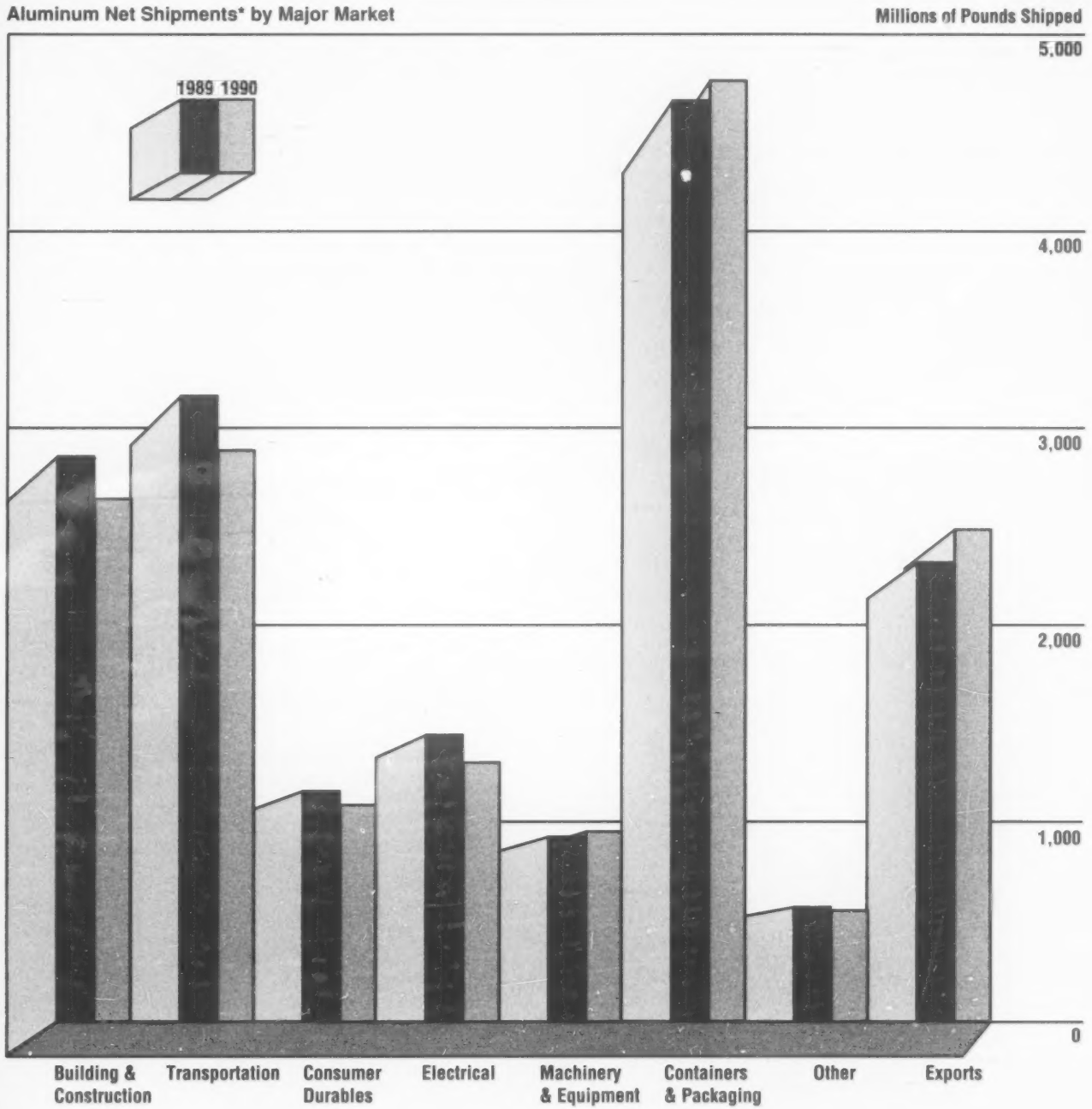
DESCRIPTION:
The Statistical and Market Research Committee of The Aluminum Association, Inc. has developed an annual breakdown of total aluminum industry shipments by major market since 1960. End use data on U.S. aluminum shipments are not available from government sources on a regular basis. Aluminum consumption figures for some industries are published by the U.S. Department of Commerce in the Census of Manufacturers. The most recent such Census covers the year 1987.

In the United States the aluminum industry has identified its major markets as building and construction, transportation, consumer durables, electrical, machinery and equipment, containers and packaging, exports and other end uses. Each of these major markets has a wide range of end uses within it.

Tables on pages 13-17 show considerable detail on the major markets for 1980-1990. Pages 18-20 also depicts trends for 1980-1990 in selected important aluminum uses.

For information on years prior to 1980 see The Aluminum Statistical Review-Historical Supplement.

Aluminum Net Shipments* by Major Market



Shipments by Major Market

Millions of Pounds

Major Market	1990 % Dist.	1990 Amount	1989 % Dist.	1989 Amount	1989-1990 % Change	1980-1990 % Annual Growth
Building & Construction	15.9	2,664	16.5	2,853 r	-6.6	1.4
Transportation	17.3	2,911	18.5	3,192 r	-8.8	4.4
Consumer Durables	6.6	1,103	7.0	1,200 r	-8.1	3.2
Electrical	7.8	1,309	8.5	1,462 r	-10.5	0.9
Machinery & Equipment	5.8	979	5.6	962 r	1.8	2.1
Containers & Packaging	28.3	4,755	27.0	4,656 r	2.1	3.5
Other	3.4	571	3.4	581 r	-1.7	0.2
Domestic, total	85.1	14,292	86.5	14,906 r	-4.1	2.7
Exports	14.9	2,494 e	13.5	2,336 e	6.8	3.8
Total Net Shipments	100.0	16,786	100.0	17,242 r	-2.6	2.8
Statistical Adjustment**		-1,021		-835 r		
Adjusted Net Shipments*		15,765		16,407 r		

r - revised

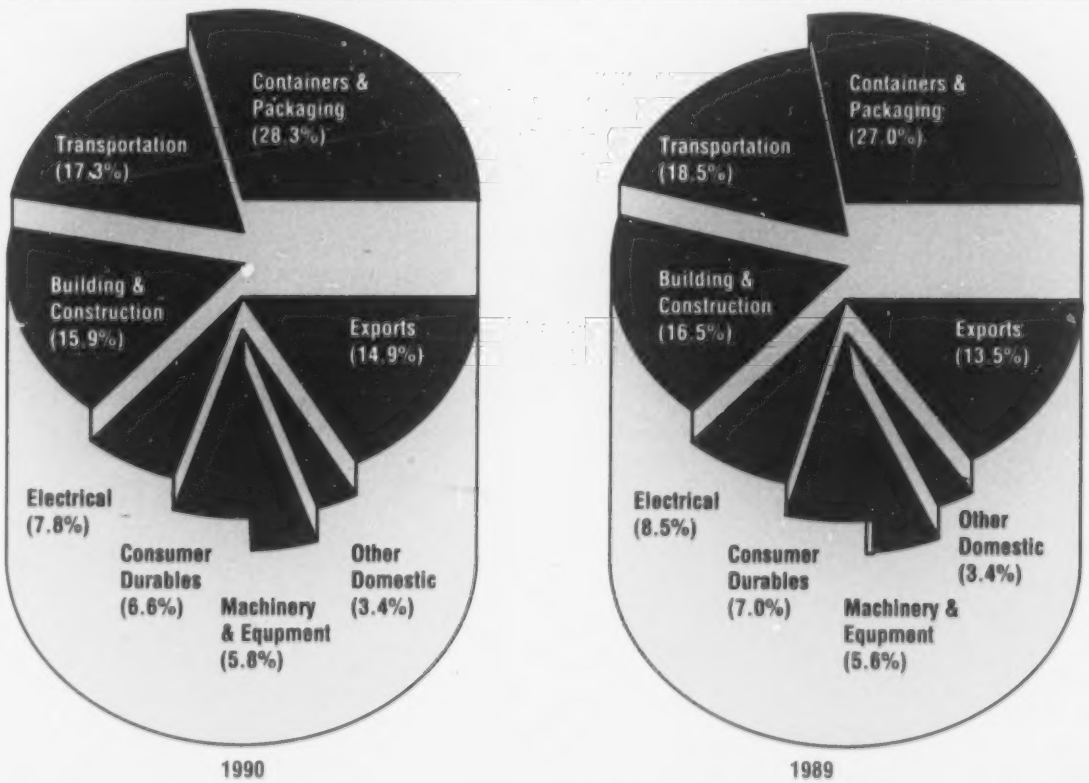
** Net Shipments exclude intra-industry shipments for further fabrication. It is the most accuarate measure of industry output to markets because it eliminates duplication. Reported receipts of aluminum for further processing are eliminated.*

*** Statistical Adjustment accounts for net shipments od aluminum reported by the Bureau of the Census which the Association believes were either over or understated in the amounts indicated due to excessive or insufficient reporting. It also includes otherwise unpublished revisions to Census data. The addition of the adjustment reconciles the amounts reported by the Bureau of the Census with net shipments that the Association feels are more correct.*

(e) Export figures contain estimated adjustments to account for either an overstatement (or understatement) of U.S. export statistics published by the Bureau of the Census.

Source: Estimated by the Statistical & Market Research Committee of The Aluminum Association, Inc.

Distribution of Aluminum Net Shipments* by Major Market



Product Net Shipments* by Major Market 1980-1990

Millions of Pounds

	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
Total Aluminum											
Building & Construction	2,664	2,853 r	2,901	3,180	3,157	3,032	2,866	2,870	2 257	2,553	2,624
Transportation	2,911	3,192 r	3,386	3,294	3,025	3,049	3,083	2,427	1,836	2,204	2,247
Consumer Durables	1,103	1,200 r	1,296	1,271	1,190	1,066	1,106	1,054	822	1,000	892
Electrical	1,309	1,462 r	1,479	1,371	1,359	1,394	1,478	1,268	1,107	1,324	1,376
Machinery & Equipment	979	962 r	959	883	845	832	832	779	704	881	844
Containers & Packaging	4,755	4,656 r	4,489	4,531	4,253	4,111	4,039	3,927	3,575	3,519	3,341
Other	571	581 r	593	609	509	577	606	567	519	638	593
Domestic, total	14,292	14,906 r	15,103	15,139	14,338	14,061	14,010	12,892	10,820	12,119	11,917
Exports	2,494 e	2,336 e	1,734	1,255	911	1,204	1,076	1,241	1,295	1,370	2,193
Aluminum Total	16,786	17,242 r	16,837	16,394	15,249	15,265	15,086	14,133	12,115	13,489	14,110
Statistical adjustment **	-1,021	-835 r	-413	-13	91	8	435	20	390	325	241
Adjusted aluminum total *	15,765	16,407 r	16,424	16,381	15,340	15,273	15,521	14,153	12,505	13,814	14,351
Ingot (1)											
Building & Construction	74	81 r	80	92	107	105	102	91	86	90	86
Transportation	1,215	1,404 r	1,531	1,461	1,348	1,415	1,420	1,172	888	1,017	960
Consumer Durables	251	277 r	288	287	306	301	301	275	259	291	265
Electrical	180	182 r	198	187	197	196	196	170	165	190	176
Machinery & Equipment	320	326 r	311	292	299	295	290	256	249	293	274
Containers & Packaging	5	5	5	5	7	12	18	20	15	22	20
Other	235	249 r	253	237	194	255	258	248	227	313	294
Domestic, total	2,280	2,524 r	2,666	2,561	2,458	2,579	2,585	2,232	1,889	2,216	2,075
Exports	1,463	1,342	912	628	472	786	594	813	817	706	1,445
Ingot Total	3,743	3,866 r	3,578	3,189	2,930	3,365	3,179	3,045	2,706	2,922	3,520
Statistical adjustment **	-945	-701 r	-397	-48	40	—	400	—	384	314	204
Adjusted ingot total *	2,798	3,165 r	3,181	3,141	2,970	3,365	3,579	3,045	3,090	3,236	3,724
Mill Products											
Building & Construction	2,590	2,772	2,821	3,088	3,050	2,927	2,764	2,779	2,171	2,463	2,538
Transportation	1,696	1,788	1,855	1,833	1,677	1,634	1,663	1,255	948	1,187	1,287
Consumer Durables	852	923	1,008	984	884	765	805	779	563	709	627
Electrical	1,129	1,280	1,281	1,184	1,162	1,198	1,282	1,098	942	1,134	1,200
Machinery & Equipment	659	636	648	591	546	537	542	523	455	588	570
Containers & Packaging	4,750	4,651 r	4,484	4,526	4,246	4,099	4,021	3,907	3,560	3,497	3,321
Other	336	332	340	372	315	322	348	319	292	325	299
Domestic, total	12,012	12,382 r	12,437	12,578	11,880	11,482	11,425	10,660	8,931	9,903	9,842
Exports	1,031 e	994 e	822	627	439	418	482	428	478	664	748
Mill Products Total	13,043	13,376 r	13,259	13,205	12,319	11,900	11,907	11,088	9,409	10,567	10,590
Statistical adjustment **	-76	-134 r	-16	35	51	8	35	20	6	11	37
Adjusted mill products total*	12,967	13,242 r	13,243	13,240	12,370	11,908	11,942	11,108	9,415	10,578	10,627

Note: See page 17 for footnotes.

Product Net Shipments* by Major Market

Product Net Shipments* by Major Market 1980-1990

Millions of Pounds

	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
Sheet											
Building & Construction	1,268	1,293	1,293	1,501	1,401	1,350	1,295	1,424	1,022	1,190	1,250
Transportation	712	738	811	792	712	676	720	567	386	499	499
Consumer Durables	440	468	531	532	476	418	411	437	295	380	333
Electrical	283	287	291	266	243	243	264	218	186	242	199
Machinery & Equipment	348	331	336	318	290	288	285	285	229	282	258
Containers & Packaging	4,125	4,039	3,831	3,868	3,626	3,509	3,395	3,275	2,977	2,869	2,693
Other	90	88	80	112	73	66	80	82	65	74	64
Domestic, total	7,266	7,244	7,173	7,389	6,821	6,550	6,450	6,288	5,160	5,536	5,296
Exports	807 e	785 e	644	469	337	303	373	296	296	368	375
Sheet Total (4)	8,073	8,029	7,817	7,858	7,158	6,853	6,823	6,584	5,456	5,904	5,671
Statistical adjustment **	-27	-20	-27	-20	-23	-24	-10	15	15	-4	-11
Adjusted sheet total *	8,046	8,009	7,790	7,838	7,135	6,829	6,813	6,599	5,471	5,900	5,660
Plate											
Building & Construction	1	1	1	1	1	1	1	1	1	1	1
Transportation	239	269	236	224	227	238	224	155	151	179	216
Consumer Durables	1	1	1	1	1	1	1	1	1	1	1
Electrical	4	4	4	4	5	4	4	4	4	18	5
Machinery & Equipment	24	24	23	22	19	18	21	16	18	29	30
Containers & Packaging	—	—	—	—	—	—	—	—	—	—	—
Other	22	20	21	20	17	16	13	13	14	12	13
Domestic, total	291	319	286	272	270	278	264	190	189	240	266
Exports	45 e	44 e	41	34	23	26	30	23	27	43	51
Plate Total	336	363	327	306	293	304	294	213	216	283	317
Statistical adjustment **	-2	—	—	-5	-8	—	—	—	—		
Adjusted plate total *	334	363	327	306	293	299	286	213	216	283	317
Foil											
Building & Construction	36	39	45	57	48	46	38	38	26	35	29
Transportation	61	64	63	61	52	52	49	45	29	32	31
Consumer Durables	135	168	167	157	131	115	134	106	77	112	84
Electrical	10	9	9	9	11	13	20	22	19	25	23
Machinery & Equipment	14	13	15	15	14	15	17	16	14	17	16
Containers & Packaging	623	608 r	650	648	611	580	613	613	570	614	614
Other	7	8	12	14	9	7	7	5	3	8	5
Domestic, total	886	909 r	961	961	876	828	878	845	738	843	802
Exports	33 e	30 e	34	32	13	12	12	11	13	21	38
Foil Total	919	939 r	995	993	889	840	890	856	751	864	840
Statistical adjustment **	9	2 r	27	-62	23	25	7	—	—	—	—
Adjusted foil total *	928	941	1,022	931	912	865	897	856	751	864	840
Extruded Shapes											
Building & Construction	1,203	1,345	1,392	1,435	1,506	1,432	1,334	1,233	1,045	1,163	1,176
Transportation	456	484	513	540	488	470	479	345	270	325	390
Consumer Durables	184	185	193	191	183	151	134	103	79	88	96
Electrical	125	120	125	119	114	119	110	74	71	76	88
Machinery & Equipment	142	136	129	116	106	106	90	75	71	80	88
Containers & Packaging	—	—	—	—	—	—	1	3	—	—	—
Other	63	65	65	72	55	68	76	75	72	63	37
Domestic, total	2,173	2,335	2,417	2,473	2,452	2,346	2,224	1,908	1,608	1,795	1,875
Exports	38 e	33 e	26	28	16	16	11	10	9	9	25
Extruded Shapes Total	2,211	2,368	2,443	2,501	2,468	2,362	2,235	1,918	1,617	1,804	1,900
Statistical adjustment **	28	10 r	—	—	—	—	—	—	—	—	—
Adj. extruded shapes total *	2,239	2,378 r	2,443	2,501	2,468	2,362	2,235	1,918	1,617	1,804	1,900

Product Net Shipments* by Major Market
1980-1990

Millions of Pounds

	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
Extruded Pipe & Tube											
Building & Construction	34	32	32	32	35	37	33	25	31	23	23
Transportation	57	61	61	54	45	49	35	26	16	20	16
Consumer Durables	65	74	86	75	68	56	44	31	25	22	24
Electrical	97	97	95	86	98	89	67	59	49	51	62
Machinery & Equipment	47	41	42	33	38	29	15	14	16	21	26
Containers & Packaging	—	—	—	—	—	—	—	—	—	—	—
Other	13	8	7	8	11	8	7	6	3	4	4
Domestic, total	313	313	323	288	295	268	201	161	140	141	155
Exports	22	17	17	15	10	10	9	9	12	14	15
Extruded Pipe & Tube Total (3)	335	330	340	303	305	278	210	170	152	155	170
Statistical adjustment **	-38	-40	-30	-20	-22	-22	-24	-30	-50	-27	-29
Adj. ext. pipe & tube total	297	290	310	283	283	256	186	140	102	128	141
Drawn Tube											
Building & Construction							3	3	2	3	3
Transportation							9	6	5	8	11
Consumer Durables							17	22	21	28	28
Electrical							8	9	9	9	10
Machinery & Equipment							14	17	17	19	20
Containers & Packaging							—	—	—	—	—
Other							4	7	6	7	8
Domestic, total							55	64	60	74	80
Exports							1	1	1	1	1
Drawn Tube Total							56	65	61	75	81
Statistical adjustment **											
Adjusted drawn tube total *	*(3)*	*(3)*	*(3)*	*(3)*	*(3)*	*(3)*	56	65	61	75	81
Welded Tube											
Building & Construction							1	1	1	2	2
Transportation							1	1			
Consumer Durables							38	52	45	54	36
Electrical							2	3	3	4	4
Machinery & Equipment							15	14	13	46	41
Containers & Packaging							—	—	—	—	—
Other							1	1	1	3	2
Domestic, total							57	71	63	110	86
Exports							—	—	—	—	—
Welded Tube Total							57	71	63	110	86
Statistical adjustment **							3	-15	-15	4	11
Adjusted welded tube total *	*(4)*	*(4)*	*(4)*	*(4)*	*(4)*	*(4)*	60	56	48	114	97
Rod & Bar (2)											
Building & Construction	11	11	11	14	13	22	27	25	23	25	29
Transportation	47	45	46	45	46	41	45	40	29	31	35
Consumer Durables	17	15	16	15	14	13	15	17	11	13	15
Electrical	75	75	85	77	70	71	85	72	66	92	97
Machinery & Equipment	56	58	66	53	51	52	53	54	46	52	51
Containers & Packaging	—	—	—	—	—	—	—	—	—	—	1
Other	32	30	36	31	30	21	29	21	24	20	26
Domestic, total	238	234	260	235	224	220	254	229	199	233	254
Exports	28	40	24	23	21	23	22	24	52	103	137
Rod & Bar Total	266	274	284	258	245	243	276	253	251	336	391
Statistical adjustment **	-45	-120 r	4	107	30	—	55	49	34	51	109
Adjusted rod & bar total *	221	154 r	288	365	275	243	331	302	285	387	500

Product Net Shipments* by Major Market

Product Net Shipments* by Major Market 1980-1990

Millions of Pounds

	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
Bare Wire											
Building & Construction	37	51	47	48	46	39	31	28	19	20	24
Transportation	12	15	15	13	12	12	9	4	4	4	5
Consumer Durables	6	8	8	8	6	6	5	5	4	5	5
Electrical	8	10	9	9	7	7	9	8	8	9	11
Machinery & Equipment	13	17	20	16	12	14	15	16	16	22	21
Containers & Packaging	2	4	3	3	3	4	4	7	6	7	6
Other	3	4	6	5	5	4	2	2	3	3	4
Domestic, total	81	109	108	102	91	86	75	70	60	70	76
Exports	23	16	11	10	7	9	6	10	12	25	58
Bare Wire Total	104	125	119	112	98	95	81	80	72	95	134
Statistical adjustment **	-3	34	10	10	21	12	—	-19	-18	-23	-60
Adjusted bare wire total *	101	159	129	122	119	107	81	61	54	72	74
ACSR & Bare Cable											
Building & Construction	—	—	—	—	—	—	—	—	—	—	—
Transportation	—	—	—	—	—	—	—	—	—	—	—
Consumer Durables	—	—	—	—	—	—	—	—	—	—	—
Electrical	212	293	280	224	238	277	341	324	299	311	367
Machinery & Equipment	—	—	—	—	—	—	—	—	—	—	—
Containers & Packaging	—	—	—	—	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—	—	—	—	—
Domestic, total	212	293	280	224	238	277	341	324	299	311	367
Exports	12 e	6 e	4	2	1	5	5	35	46	68	25
ACSR & Bare Cable Total	224	299	284	226	239	282	346	359	345	379	392
Statistical adjustment **	—	—	—	—	—	—	—	—	—	—	8
Adj. ACSR & bare cable total	224	299	284	226	239	282	346	359	345	379	400
Insulated or Covered Wire & Cable											
Building & Construction	—	—	—	—	—	—	—	—	—	—	—
Transportation	—	—	—	—	—	—	—	—	—	—	—
Consumer Durables	—	—	—	—	—	—	—	—	—	—	—
Electrical	314	384	381	388	374	373	369	302	225	293	330
Machinery & Equipment	—	—	—	—	—	—	—	—	—	—	—
Containers & Packaging	—	—	—	—	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—	—	—	—	—
Domestic, total	314	384	381	388	374	373	369	302	225	293	330
Exports	3	3	1	—	—	1	1	1	1	2	4
Insulated Wire & Cable Total	317	387	382	388	374	374	370	303	226	295	334
Statistical adjustment **	—	—	—	20	22	22	24	30	50	27	29
Adj. insul. wire & cable total*	317	387	382	408	396	396	394	333	276	322	363
Forgings											
Building & Construction	—	—	—	—	—	—	1	1	1	1	1
Transportation	105	105	103	97	87	89	87	62	53	82	79
Consumer Durables	1	1	1	1	1	1	1	1	1	2	2
Electrical	—	—	—	—	—	—	1	1	1	1	1
Machinery & Equipment	10	11	10	10	9	9	9	8	8	10	10
Containers & Packaging	—	—	—	—	—	—	—	—	—	—	—
Other	9	12	17	13	15	17	12	13	12	10	11
Domestic, total	125	129	131	121	112	116	111	86	76	106	104
Exports	7	10 e	8	7	5	7	4	3	3	3	3
Forgings Total	132	139	139	128	117	123	115	89	79	109	107
Statistical adjustment **	-17	-20	-20	-20	-20	-15	—	—	—	—	—
Adjusted forgings total *	115	119	119	108	97	108	115	89	79	109	107

Product Net Shipments* by Major Market
1980-1990

	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
Impacts											
Building & Construction	—	—	—	—	—	—	—	—	—	—	—
Transportation	7	7	7	7	8	7	6	5	5	6	4
Consumer Durables	3	3	5	4	4	4	5	4	4	4	3
Electrical	1	1	2	2	2	2	2	2	2	3	3
Machinery & Equipment	5	5	7	8	7	6	8	8	7	10	9
Containers & Packaging	—	—	—	7	6	6	8	9	7	7	7
Other	4	4	6	—	—	—	—	—	—	—	—
Domestic, total	20	20	27	28	27	25	29	28	25	30	26
Exports	—	—	—	—	—	—	—	—	—	—	—
Impacts Total	20	20	27	28	27	25	29	28	25	30	26
Statistical adjustment **	19	20	20	20	20	15	—	—	—	—	—
Adjusted impacts total *	39	40	47	48	47	40	29	28	25	30	26
Powder & Paste											
Building & Construction	—	—	—	—	—	—	—	—	—	—	—
Transportation	—	—	—	—	—	—	—	—	—	—	—
Consumer Durables	—	—	—	—	—	—	—	—	—	—	—
Electrical	—	—	—	—	—	—	—	—	—	—	—
Machinery & Equipment	—	—	—	—	—	—	—	—	—	—	—
Containers & Packaging	—	—	—	—	—	—	—	—	—	—	—
Other	93	93	90	97	100	115	117	94	89	121	125
Domestic, total	93	93	90	97	100	115	117	94	89	121	125
Exports	13	10	12	7	6	6	8	5	6	7	16
Powder & Paste Total	106	103	102	104	106	121	125	99	95	128	141
Statistical adjustment **	—	—	—	—	—	—	-12	-10	-10	-17	-20
Adj. powder & paste total *	106	103	102	104	106	121	113	89	85	111	121

r - revised

** Total mill products are net shipments of aluminum mill products as reported by domestic producers to the U.S. Department of Commerce, plus imported mill products. Prior to 1987, import receipts to domestic producers were substracted.*

*** Statistical Adjustment accounts for net shipments of aluminum reported by the Bureau of the Census which the Association believes were either over or understated in the amounts indicated due to excessive or insufficient reporting. It also includes otherwise unpublished revisions to Census data. The addition of the adjustment reconciles the amounts reported by the Bureau of the Census with net shipments that the Association feels are more correct.*

e - Export figures contain estimated adjustments to account for either an overstatement (or understatement) of U.S.export statistics published by the Bureau of the Census.

(1) Includes primary and secondary ingot for castings, destructive uses and exports.
(2) Extruded rod and bar combined with rolled and continious cast rod and bar.
(3) Drawn tube combined with extruded pipe and tube.
(4) Welded tube combined with sheet.

Note: Net Shipments exclude intra-industry shipments for further fabrication. It is the most accuarate measure of industry output to markets because it eliminates duplication. Reported receipts of aluminum for further processing are eliminated.

For information prior to 1980, see The Alunminum Statistical Review - Historical Supplement

Source: Estimated by the Statistical & Market Research Committee of The Aluminum Association, Inc.

Trends in Selected Markets

Trends in Selected Markets*
1980-1990

BUILDING & CONSTRUCTION — Millions of Pounds

	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
Windows, doors & screens, total	885	975 r	1,033	1,102	1,136	1,080	987	949	748	845	851
Ingot	26	28 r	31	34	40	37	37	33	30	34	36
Total mill products	859	947	1,002	1,068	1,096	1,043	950	916	718	811	815
Sheet	162	161	159	181	168	168	152	154	108	131	118
Plate	1	1	1	1	1	1	1	1	1	1	1
Extruded shapes	680	760	817	860	902	845	766	733	585	651	665
Rod & bar [1]	—	—	—	—	—	9	15	14	11	14	16
Bare wire	16	25	25	26	25	20	16	14	13	14	15
Awnings and canopies, total	101	98	97	132	129	132	147	152	105	114	143
Sheet	83	80	78	111	109	111	122	130	86	93	121
Extruded shapes	17	17	18	20	18	19	22	19	16	18	19
Extruded pipe & tube [3]	1	1	1	1	2	2	1	1	1	1	1
Drawn tube [3]	—	—	—	—	—	—	1	1	1	1	1
Welded tube [4]	—	—	—	—	—	—	1	1	1	1	1
Residential siding, total incl. soffits & fascia	384	412	425	503	465	454	407	469	326	396	452
Sheet	382	410	423	501	463	452	405	467	324	394	449
Extruded shapes	2	2	2	2	2	2	2	2	2	2	3
Mobile homes, total	126	139	145	178	185	193	183	217	161	174	156
Ingot	4	4	4	5	6	5	5	5	4	4	3
Total mill products	122	135	141	173	179	188	178	212	157	170	153
Sheet	69	79	83	104	103	114	111	140	106	115	102
Extruded shapes	53	56	58	69	76	74	67	72	51	55	51
Bridge, street & highway total	137	110	121	133	138	131	112	112	95	93	101
Ingot	12	12	12	14	16	16	16	14	13	12	12
Total mill products	125	98	109	119	122	115	96	98	82	81	89
Sheet	72	52	62	71	72	65	52	61	47	48	52
Foil	1	1	1	1	1	1	1	1	1	1	1
Extruded shapes	26	21	22	22	23	22	20	19	15	16	18
Pipe & tube [3]	25	23	23	23	24	25	22	16	18	15	17
Rod & bar [1]	1	1	1	2	2	2	1	1	1	1	1

Note: See footnote page 20.

Trends in Selected Markets*
1980-1990

TRANSPORTATION

Millions of Pounds

	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
Trucks & buses, total	425	454 r	496	470	436	419	466	357	273	310	287
Ingot	191	210 r	225	205	200	200	212	183	151	148	136
Total mill products	234	244	271	265	236	219	254	174	122	162	151
Sheet	126	129	148	144	128	123	151	96	68	85	77
Plate	6	7	6	6	5	5	4	4	3	4	4
Foil	1	1	1	1	1	1	1	—	—	—	—
Rod & bar [1]	2	2	2	2	1	1	1	2	2	2	2
Extruded shapes	60	61	68	70	65	55	60	49	32	45	44
Extruded pipe & tube [3]	3	3	3	2	2	2	1	1	1	1	1
Drawn tube [3]	—	—	—	—	—	—	1	1	1	1	1
Bare wire	—	—	—	—	—	—	—	—	—	—	—
Forgings	35	40	42	39	33	31	34	20	14	23	21
Impacts	1	1	1	1	1	1	1	1	1	1	1
Passenger cars, total	1,370	1,540 r	1,691	1,617	1,484	1,547	1,542	1,279	911	1,105	1,046
Ingot	930	1,089 r	1,198	1,149	1,040	1,109	1,108	917	662	781	746
Total mill products	440	451	493	468	444	438	434	362	249	324	300
Sheet	252	267	313	296	286	274	284	235	156	199	180
Plate	2	2	2	2	1	1	1	1	1	1	1
Foil	60	59	56	55	47	46	43	40	26	28	24
Rod & bar [1]	21	21	22	20	22	20	18	19	9	9	10
Extruded shapes	42	46	46	49	46	53	43	34	37	59	61
Extruded pipe & tube [3]	38	40	39	33	26	27	22	18	9	13	9
Drawn tube [3]	—	—	—	—	—	—	5	3	1	4	7
Bare wire	2	2	2	2	3	3	4	1	1	1	1
Forgings	20	12	11	9	11	12	12	10	8	8	6
Impacts	3	2	2	2	2	2	2	1	1	2	1
Trailers & semitrailers, total	359	412 r	424	450	388	386	425	301	174	211	243
Ingot	22	27 r	28	32	28	30	31	20	17	20	21
Total mill products	337	385	396	418	360	356	394	281	157	191	222
Sheet	141	156	153	167	143	140	158	124	62	78	88
Plate	8	8	9	9	10	11	9	7	4	7	9
Rod & bar [1]	1	1	1	1	1	1	1	1	1	1	1
Extruded shapes	180	214	229	237	203	201	222	147	88	103	122
Extruded pipe & tube [3]	2	3	3	3	2	2	2	1	1	1	1
Bare wire	3	2	1	1	1	1	2	1	1	1	1
Forgings	2	1	—	—	—	—	—	—	—	—	—

Trends in Selected Markets

Trends in Selected Markets*
1980-1990

CONSUMER DURABLES										Millions of Pounds	
	1990	**1989**	**1988**	**1987**	**1986**	**1985**	**1984**	**1983**	**1982**	**1981**	**1980**
Air conditioners, freezers refrigerators, total	362	433 r	446	417	375	315	337	275	219	290	249
Ingot	34	39 r	39	35	36	33	32	30	25	33	29
Total mill products	328	394	407	382	339	282	305	245	194	257	220
Sheet	132	152	157	150	134	118	125	108	95	117	106
Foil	131	164	163	150	129	113	132	104	75	109	81
Rod & bar (1)	1	1	1	1	1	1	1	2	0	0	0
Extruded shapes	30	33	33	32	31	17	15	13	12	13	13
Extruded pipe & tube (3)	34	44	53	49	44	33	30	16	11	14	12
Drawn tube (3)	—	—	—	—	—	—	2	2	1	4	8
Portable appliances, total	44	50 r	51	52	49	47	53	55	44	59	56
Ingot	23	26 r	27	28	30	28	31	30	26	31	30
Total mill products	21	24	24	24	19	19	22	25	18	28	26
Sheet	18	21	21	21	17	16	18	21	14	23	22
Extruded shapes	2	2	2	2	1	2	2	2	3	3	2
Extruded pipe & tube (3)	1	1	1	1	1	1	1	1	1	1	1
Rod & bar (1)	—	—	—	—	—	—	1	1	—	1	1
Cooking utensils, total	120	119	142	159	151	150	175	206	136	171	161
Ingot	18	19	21	24	26	25	26	24	22	26	24
Total mill products	102	100	121	135	125	125	149	182	114	145	137
Sheet	99	97	118	132	122	121	144	177	109	140	132
Extruded shapes	2	2	2	2	2	3	4	4	4	4	4
Bare wire	1	1	1	1	1	1	1	1	1	1	1
CONTAINERS & PACKAGING											
Household & institutional foil, total	266	269	281	285	270	267	270	283	270	287	283
Metal cans, total	4,026	3,923	3,698	3,732	3,502	3,381	3,251	3,140	2,858	2,725	2,583
Sheet	4,026	3,923	3,698	3,732	3,502	3,381	3,251	3,140	2,858	2,725	2,583
Semi-rigid food containers, total	143	151 r	161	163	167	157	173	158	134	153	160
Sheet	16	19	25	30	27	25	33	21	19	38	20
Foil	127	132 r	136	133	140	132	140	137	115	115	140

r - revised

** - These selected markets represent either those in which the Association has marketing programs or which are important aluminum categories. They only account for a portion of aluminum shipments to each major market.*
(1) Extruded rod and bar combined with rolled and continious cast rod and bar.
(2) Shipment to Passenger Cars cover new domestic automobile production, spare parts, accessories and after-market parts. Shipments for light trucks andvans are included in Trucks and Buses.
(3) Drawn tube combined with extruded pipe and tube.
(4) Welded tube combined with sheet.

Note: For information prior to 1980, see The Alunminum Statistical Review - Historical Supplement

SOURCE: Estimated by the Statistical & Market Research Committee of The Aluminum Association.

U.S. Aluminum Supply

The U.S. aluminum supply increased 425 thousand metric tons in 1990 to a total of 7,862 thousand metric tons. This represents a 5.7 percent rise compared to the 1989 supply level. Primary production at 4,048 thousand metric tons was up 0.4 percent from the 1989 production of 4,030 thousand metric tons.

Primary imports of 962 thousand metric tons were 3.9 percent more than the 1989 level of 926 thousand metric tons. Imports of mill products increased 7.5 percent to 459 thousand metric tons during 1990 as compared to 427 thousand metric tons in 1989.

Import data reflect the reimports of metal exported for processing and returned for further processing.

Secondary recovery (domestic and imports) was 2,393 thousand metric tons, up 16.5 percent from 1989.

The graph on page 22 illustrates the relative change in the portions of total aluminum supplies from each source for the years 1980 through 1990.

The table on page 23 details the total supply of aluminum and its principal sources for the years 1942 through 1990 before any adjustments for stockpile deliveries or withdrawals.

U.S. primary aluminum production over the past decade is outlined on the graph and detailed in the table on page 25.

Installed capacity by company is presented for the years 1980 through 1990 on page 26. The 1990 year-end primary aluminum capacity in the U.S. was 4,087,100 metric tons, level with 1989.

Aluminum recovery from scrap is an important contributor to the total aluminum supply. Data showing the increase in the source of supply for the years 1946 through 1990 are presented on pages 30 and 31.

Used beverage cans are an important part of the U.S. aluminum supply. In 1990, U.S. consumers recycled over 1.9 billion pounds of used beverage cans, accounting for 63.6 percent of can shipments.

Total Supply

1990 SUPPLY UP 5.7 PERCENT
Total supply increased 5.7 percent to 7,862 thousand metric tons in 1990.

Changes vs. 1989

Primary Production	+ 0.4%
Imports, Primary	+ 3.9%
Imports, Mill Prods	+ 7.5%
Secondary Recovery	+16.5%

Since 1980, the total supply has expanded at an average rate of 1.7 percent a year. In 1990, primary production represented 52 percent of total supply; imports accounted for 18 percent; and secondary recovery represented 30 percent.

In the ten years, 1980-1990, secondary recovery grew at a 3.3 percent annual rate, while primary production decreased at a 0.9 percent annual rate.

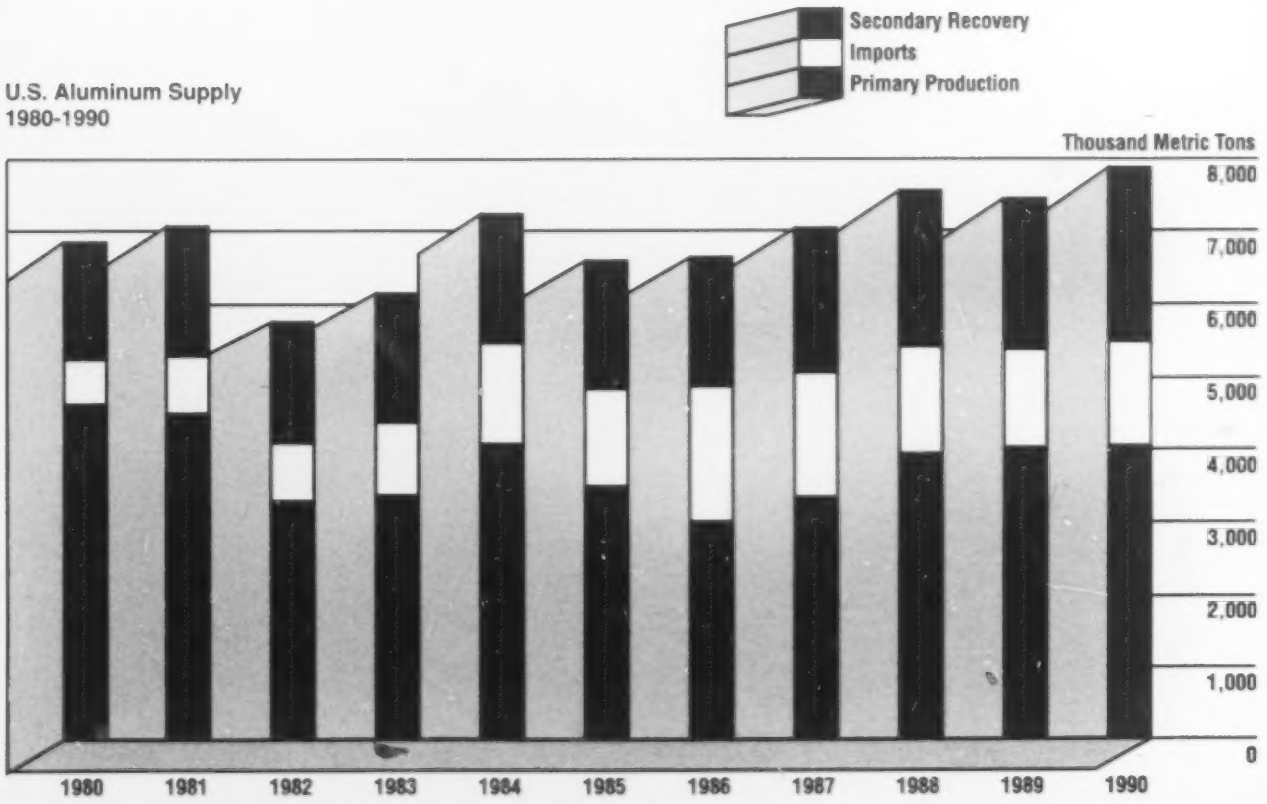
DESCRIPTION:

United States supply of aluminum consists of domestic primary production, imports of primary and mill products, and metal recovered from scrap. No adjustment is made in this presentation for shipments or withdrawals from the government stockpile.

Detailed data on United States supply of aluminum from 1942 to 1990 are shown in the table on page 23.

For a picture of domestic primary production, see page 25. For the relationship of domestic primary production to world production, see pages 44-45. For a breakdown of imports, see pages 38-39. For further information on secondary recovery, see pages 30 and 31.

U.S. Aluminum Supply
1980-1990



Total Supply
1942 - 1990

Thousands of Metric Tons

Year	Total Supply	Domestic Primary Production	Imports			Secondary Recovery		
			Total	Primary[1]	Mill Products[3]	Total	Domestic[2]	Imported Scrap[1][2]
1942	753	473	102	97	5	178	178	(*)
1943	1,242	835	123	123	(*)	285	285	(*)
1944	1,092	704	91	91	(*)	297	295	1
1945	1,029	449	305	302	3	275	271	4
1946	674	371	39	38	1	264	252	12
1947	859	519	14	14	(*)	326	313	13
1948	965	566	81	75	5	319	260	59
1949	822	547	78	70	7	197	164	33
1950	1,099	652	171	161	10	276	221	55
1951	1,171	759	130	111	19	282	265	16
1952	1,264	850	131	116	15	282	276	6
1953	1,795	1,136	303	273	30	356	334	22
1954	1,830	1,325	214	201	13	291	284	7
1955	2,014	1,420	200	179	21	393	376	18
1956	2,153	1,523	232	210	22	398	388	10
1957	2,133	1,495	224	205	20	415	404	11
1958	2,009	1,420	259	232	28	329	321	8
1959	2,457	1,773	268	218	50	416	407	9
1960	2,406	1,828	178	140	38	401	397	4
1961	2,402	1,727	230	181	49	445	440	5
1962	2,796	1,921	341	282	59	533	528	5
1963	3,118	2,098	419	377	42	601	593	8
1964	3,372	2,316	409	357	51	648	641	7
1965	3,817	2,499	543	479	65	774	752	22
1966	4,116	2,693	591	475	116	833	805	28
1967	4,254	2,966	466	408	59	821	797	25
1968	4,572	2,953	684	622	62	935	904	31
1969	4,991	3,441	484	425	59	1,067	1,043	24
1970	4,950	3,607	406	318	88	937	907	30
1971	5,146	3,561	582	503	78	1,004	953	51
1972	5,445	3,740	684	598	86	1,022	1,022	(2)
1973	5,759	4,109	523	461	63	1,127	1,127	(2)
1974	6,123	4,448	511	461	50	1,163	1,163	(2)
1975	5,093	3,519	453	394	59	1,121	1,121	(2)
1976	5,799	3,857	608	522	86	1,334	1,334	(2)
1977	6,256	4,117	683	608	75	1,456	1,456	(2)
1978	6,783	4,358	907	688	220	1,518	1,518	(2)
1979	6,880	4,557	711	518	193	1,612	1,612	(2)
1980	6,833	4,653	603	527	76	1,577	1,577	(2)
1981	7,061	4,489	782	645	138	1,790	1,790	(2)
1982	5,762	3,274	823	616	207	1,666	1,666	(2)
1983	6,149	3,353	1,023	743	281	1,773	1,773	(2)
1984	7,235	4,099	1,376	882	494	1,760	1,760	(2)
1985	6,594	3,500	1,332	869	463	1,762	1,762	(2)
1986	6,655	3,039	1,843	1,349	494	1,773	1,773	(2)
1987	7,035	3,347	1,702	1,246	456	1,986	1,986	(2)
1988	7,534	3,945	1,467	1,027	440	2,122	2,122	(2)
1989r	7,437 r	4,030	1,353 r	926	427 r	2,054 r	2,054 r	(2)
1990p	7,862	4,048	1,421	962	459	2,393	2,393	(2)

Detail may not add due to rounding
p - preliminary
r - revised

(*) Less than 0.5 metric tons. - Conversion Factor: One metric t on = 2,204.6 pounds

(1) Some imports of starter metal, classified by the Bureau of the Census in 1954-57 as scrap, have been classified as primary metal, as estimated by the Dept. of Commerce.

(2) Domestic secondary data are recoverable metal content for estimated total scrap consumption, as estimated by the Bureau of Mines. Before 1972, total supply included secondary recovery and an estimated 90 percent recovery from reported scrap imports. Beginning in 1972 the Bureau of Mines required reporting of imported scrap recovery data and these data are included in the domestic recovery figures beginning that year.

(3) Starting in 1970, includes reimports of metal exported for processing and returned for further processing.

Source: U.S. Department of Commerce - Bureau of the Census and U.S. Department of Interior - Bureau of Mines

U.S. Suppliers' Inventories

INVENTORIES UP 0.2 PERCENT

The Bureau of the Census began reporting U.S. Suppliers' aluminum inventory in 1968. The figures include all forms of scrap, ingot, metal in process and finished products. During 1990, inventories increased by 8 million pounds to a year-end inventory of 4,024 million pounds.

U.S. Suppliers' Inventories 1980-1990

Millions of pounds at the end of the year

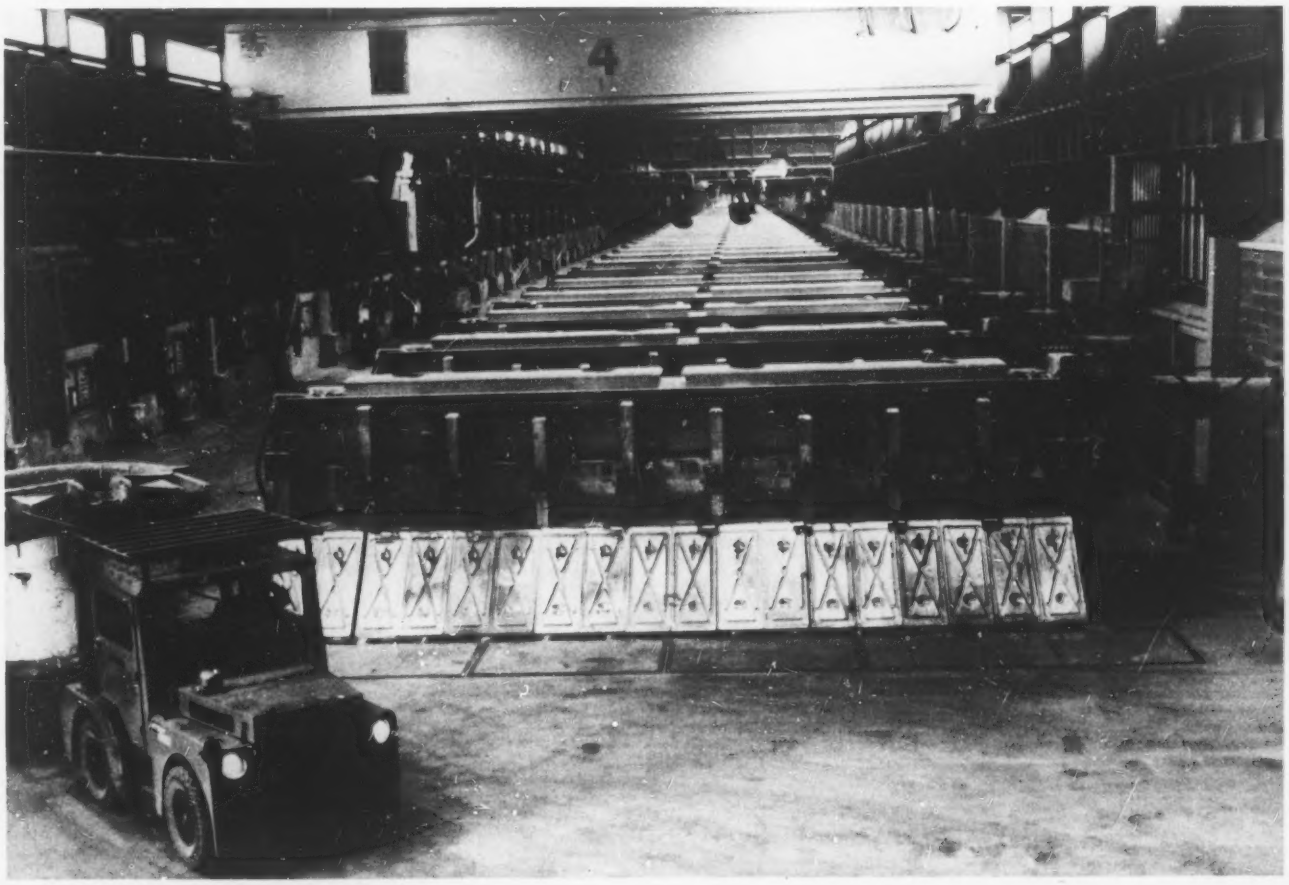
	Type of Supplier			
Year*	Total	Integrated	Non Integrated	Secondary Smelter
1980	5,076	4,018	797	261
1981	6,607	5,542	798	266
1982	6,199	5,224	759	216
1983	4,994	3,979	853	163
1984	5,850	4,692	929	229
	Total	Ingot	Scrap	Other
1985	5,165	2,235	567	2,364
1986	4,928	1,973	630	2,324
1987	4,175	1,466	587	2,123
1988	4,151	1,410	650	2,091
1989 r	4,016	1,377	655	1,985
1990	4,024	1,348	610	2,066

Detail may not add due to rounding

** Prior to 1980 consult The Aluminum Statistical Review - Historical Supplement*

Source: U.S. Department of Commerce, Bureau of the Census - Current Industrial Reports

The United States continues to be the worlds largest producer of primary aluminum with 1990 production totaling over 4 million metric tons, accounting for 22.7 percent of world production.



Production of Primary Aluminum

PRODUCTION UP 4.5 PERCENT
Primary aluminum production totaled 4,048 thousand metric tons in 1990 vs. the production of 4,030 thousand metric tons in 1989. In the decade 1980-1990 the average annual rate of change was -0.9 percent.

DESCRIPTION:

In the United States, primary production of aluminum was begun in 1888 by the Pittsburgh Reduction Company. Data on aluminum production started in 1893, covering the industry from its very early period.

Data for 1980-1990 are presented here for your review. Data prior to 1980 may be obtained from the Aluminum Statistical Review-Historical Supplement.

Production of Primary Aluminum in U.S.A. 1980-1990

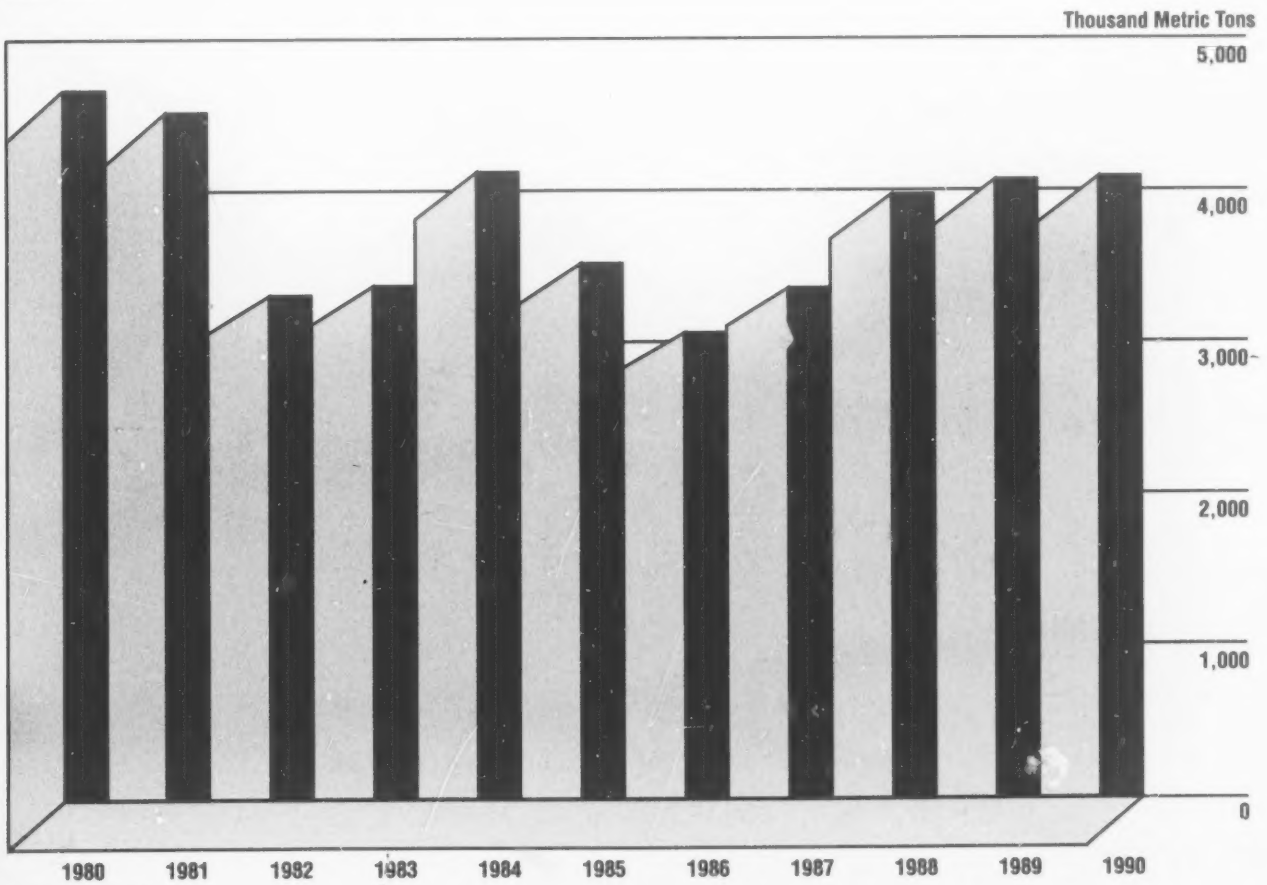
Year*	Thousands of Metric Tons
1980	4,653.6
1981	4,488.7
1982	3,273.7
1983	3,353.3
1984	4,099.1
1985	3,499.7
1986	3,038.7
1987	3,346.9
1988	3,944.5
1989	4,030.2
1990	4,048.3

Conversion Factor:
One metric ton = 2,204.6 pounds

Source: The Aluminum Association

** Prior to 1980, consult The Aluminum Statistical Review - Historical Supplement*

U.S. Primary Aluminum Production 1980-1990



Source: The Aluminum Association

U.S. Primary Aluminum Capacity

CAPACITY UNCHANGED FROM PREVIOUS YEAR

Total annual primary aluminum installed capacity, as of December 31, 1990, was 4,087,100 metric tons.

The percentage distribution of U.S. primary capacity by company at year-end 1990 was: Alcoa, 31.4%; Alumax, 14.7%; Reynolds, 11.0%; Kaiser, 6.7%; Ormet, 6.0%; Noranda, 5.0%; Southwire, 4.3%; Columbia Aluminum, 4.1%; Ravenswood, 4.1%; Alcan, 4.0%; Columbia Falls, 4.0%; Vanalco, 2.8%; Northwest Aluminum, 2.0%.

DESCRIPTION:

There were thirteen domestic primary producer companies as of December 31, 1990. They were Alcan Aluminum Corp., Aluminum Company of America, Alumax, Inc., Columbia Falls Aluminum, Columbia Aluminum Corp., Kaiser Aluminum & Chemical Corporation, Noranda Aluminum Incorporated, Northwest Aluminum, Ormet Corp., Ravenswood Aluminum Corp., Reynolds Metals Company, Southwire Company and Vanalco, Inc.

U.S. Primary Aluminum Capacity [1]
1980-1990

Thousands of Metric Tons

	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
Aluminum Company of America	1,285.0	1,285.0	1,155.0	1,155.0	1,095.0	1,430.0	1,429.7	1,429.7	1,429.7	1,564.9	1,564.9
Alumax, Inc. [3]	600.0	600.0	600.0	600.0	600.0	599.0	595.1	595.1	385.6	377.1	377.1
Reynolds	448.0	448.0	448.0	422.8	422.8	422.8	781.1	884.5	884.5	884.5	884.5
Kaiser	273.1	273.1	383.8	383.8	526.2	526.2	526.2	656.8	656.8	656.8	656.8
Ormet Corp. [6]	244.9	244.9	244.9	244.9	244.9	—	—	—	—	—	—
ARCO Aluminum [2][5]	—	—	—	—	—	—	326.6	326.6	326.6	326.6	326.6
Consolidated	—	—	—	—	—	227.2	292.3	294.1	326.8	319.3	319.3
Howmet [3]	—	—	—	—	—	—	—	—	207.0	198.4	198.4
Noranda	204.1	204.1	204.1	204.1	204.1	204.1	204.1	204.1	204.1	127.0	127.0
Revere	—	—	—	—	—	184.7	184.9	184.9	184.9	184.3	184.3
Commonwealth [4]	—	—	—	—	167.8	167.8	—	—	—	—	—
Columbia Aluminum [7]	167.8	167.8	167.8	167.8	—	—	—	—	—	—	—
Ravenswood Aluminum [9]	166.0	166.0	—	—	—	—	—	—	—	—	—
Alcan Aluminum Corp. [5]	163.3	163.3	163.3	163.3	163.3	163.3	—	—	—	—	—
Columbia Falls	163.3	163.3	163.3	163.3	163.3	163.3	—	—	—	—	—
Vanalco	115.0	115.0	115.0	115.0	—	—	—	—	—	—	—
National Aluminum [10]	—	95.4	95.4	95.4	95.4	95.4	93.9	86.2	81.6	81.6	81.6
Northwest Aluminum [8]	81.6	81.6	81.6	81.6	81.6	—	—	—	—	—	—
Southwire [10]	175.0	79.6	79.6	79.6	79.6	79.6	78.5	86.2	81.6	81.6	81.6
Martin Marietta	—	—	—	—	—	81.6	249.5	249.5	249.5	190.5	190.5
Total	4,087.1	4,087.1	3,901.8	3,876.6	3,844.0	4,345.1	4,761.9	4,997.7	5,018.8	4,992.8	4,992.8

(1) Capacities shown are as reported as of December 31. They include nominal ownership of plants owned by more than one company.
(2) Formally the Anaconda Company, Aluminum Division.
(3) Alumax aquired Howmet in 1983.
(4) Commonwealth aquired 67% of Martin Marietta in 1985.
(5) Alcan and Columbia Falls aquired 50% each of ARCO Aluminum in 1985.
(6) Formally included with Consolidated and Revere.
(7) Formally Commonwealth's Goldendale plant.
(8) Formally Martin Marietta's The Dalles plant.
(9) Formally included with Kaiser Aluminum & Chemical Corp.
(10) 100% interest in National Southwire purchased by Southwire Company in 1990.

Note: Prior to 1980, consult The Aluminum Statistical Review - Historical Supplement.

SOURCE: The Aluminum Association
CONVERSION FACTOR: One metric ton = 2,204.6 pounds

Number of Plants in the U.S.

Number of Plants in the U.S.

Selected Years

Product	1985	1982	1977
Primary Ingot	30	32	32
Secondary Ingot	69	76	89
Sheet & Plate	44	68	49
Foil	26	27	27
Rod & Bar, Rolled and Continuous Cast	18	22	31
Wire, Bare, Conductor & Nonconductor	61	69	125
ACSR and Aluminum Cable, Bare	16	16	59
Wire & Cable, Insulated or Covered	43	43	90
Extruded Products	217	226	222
Drawn Tube	19	19	22
Welded Tube	16	18	32
Powder	19	17	18
Forgings	48	44	74
Impacts	13	16	29

Source: 1977 - U.S. Department of Commerce
1982 and 1985 - The Aluminum Association

The data presented here are based on a survey conducted by The Aluminum Association in 1985. Previous years are based on unofficial directories prepared by the U.S. Department of Commerce, Bureau of Industrial Economics.

The figures shown for each product's selected years, represent the number of plants—not companies, which in many instances operate more than one plant.

No totals are shown since some plants produce more than one product. Data includes captive plants (plants producing only for company's own use).

Five outline maps of the United States indicating the geographic distribution of aluminum plants by various product groups in 1985 are presented on pages 27-29.

For a detailed listing, contact The Aluminum Association for a copy of the U.S. Aluminum Industry Plant Directory (August, 1985).

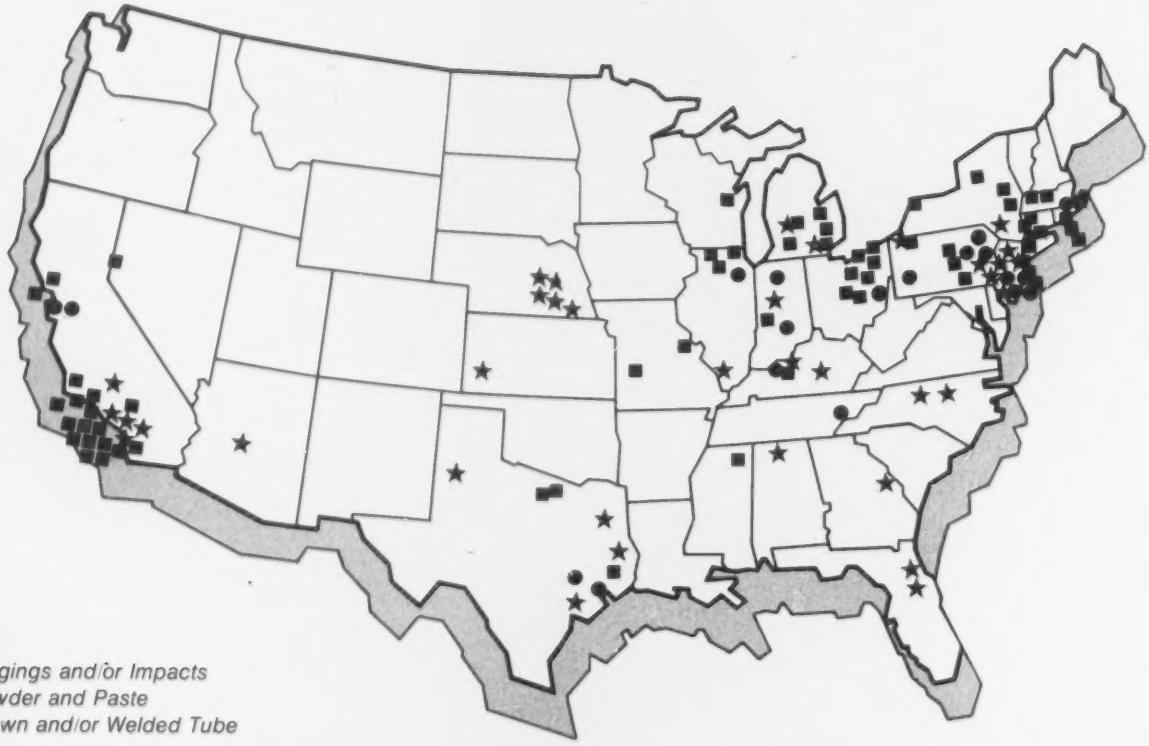
★ *Primary*
■ *Secondary*

U.S. Plants — cont.

● *Foil*
★ *Sheet and Plate*

● *Bare Wire*
★ *Rolled and Continuous Cast Rod and Bar*
■ *ACSR and Cable and/or Insulated or Covered Wire and Cable*

★ *Extrusions*



■ *Forgings and/or Impacts*
● *Powder and Paste*
★ *Drawn and/or Welded Tube*

Aluminum Scrap Consumption and Recovery

SCRAP CONSUMPTION JUMPS 18.0 PERCENT

According to preliminary data from the Bureau of Mines, total domestic industry scrap consumption, on a gross weight basis, increased 18.0 percent to a 1990 level of 2,690 thousand metric tons from the 1989 volume of 2,280 thousand metric tons.

Secondary recovery totaled 2,393 thousand metric tons with new scrap accounting for 43 percent and old scrap for 57 percent.

Old scrap recovery at 1,359 thousand metric tons was up 34.4 percent from 1989. Reclamation from aluminum cans increased to an estimated 877,300 metric tons, up 14.6 percent from 1989 accounting for 63.6% of can shipments.

DESCRIPTION:

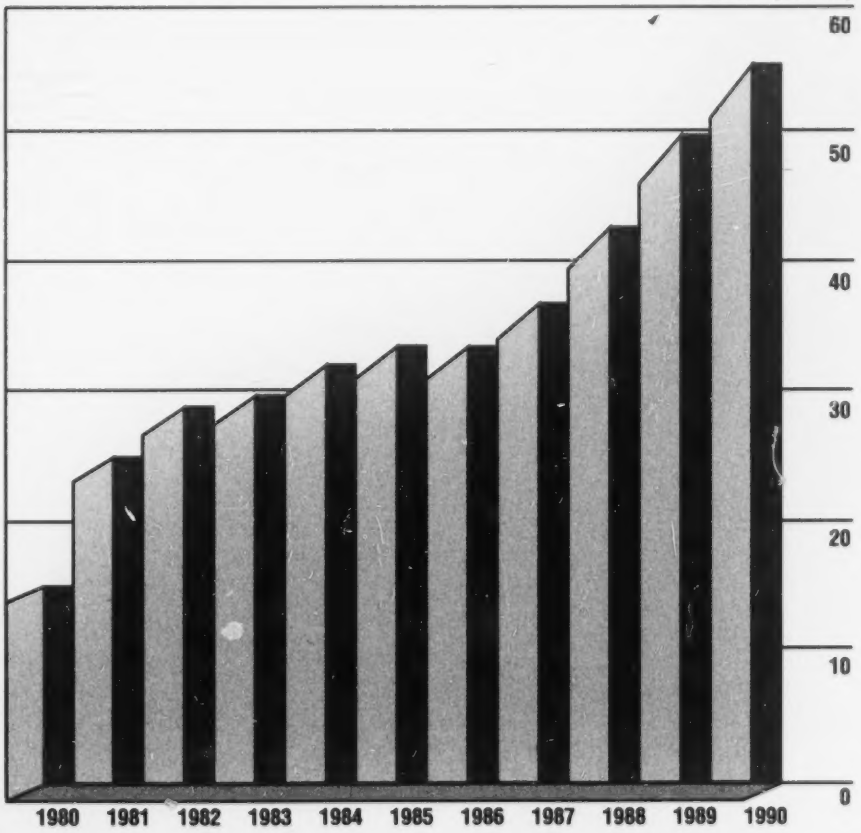
Recovery of aluminum from scrap, an important source of supply, is shown on pages 30 and 31. Two sets of scrap data are tabulated. The scrap consumption figures are on a gross weight basis as reported by plants consuming scrap. The aluminum recovery figures are on a recovered metal basis, that is the content of aluminum base alloy recovered from gross weight consumed. The figures in this table are consistent with domestic secondary recovery on page 23.

The aluminum recovery data are shown by source, that is by new and old scrap. New scrap, generated by plants making end products, and old scrap recovered from metal that has been used by consumers, are returned to plants making ingot and mill products and thus add to the total metal supply.

Through 1954, data on scrap consumption and recovery are based on complete reporting. Beginning in 1955, reported figures are expanded to industry totals by the Bureau of Mines to allow for a number of firms who do not report. In 1961, sweated pig consumption data were improved and included in old scrap.

Recovery of new scrap and old scrap, over the past ten years, has been about 27 percent of total supply (30.4 percent in 1990). However, this figure does not include "run-around" scrap consumed by the generating companies.

Aluminum Can Reclamation Data 1980-1990



[1]Calculation based on an Association can weight survey.

Aluminum Can Reclamation 1980-1990

Year	Pounds of Aluminum Collected (millions)	No. of Aluminum Cans Collected (billions) [2]	Percent of Aluminum Cans Collected [3]
1980	- 609 [1]	14.8	37.3
1981	1,017 [1]	24.9	53.2
1982	1,124 [1]	28.3	55.5
1983	1,144 [1]	29.4	52.9
1984	1,226 [1]	31.9	52.8
1985	1,245 [4]	33.1	51.0
1986	1,233 [4]	33.3	48.7
1987 [5]	1,335 [4]	36.6	50.5
1988	1,505 [4]	42.5	54.6
1989	1,688 [4]	49.4	60.8
1990	1,934 [4]	55.0	63.6

SOURCE:
(1) Net Receipts - U.S. Department of Interior Bureau of Mines
(2) Calculation based on an Aluminum Association can weight survey
(3) Based on Can Manufacturers Institute aluminum beverage can shipment data - lagged on quarter
(4) Estimated by The Aluminum Association Statistical and Market Research Committee
(5) Beginning in 1987, UBC data includes estimate of exported can scrap

Aluminum Scrap Consumption and Recovery 1946-1990

Thousands of Metric Tons

	SCRAP CONSUMPTION	SCRAP CONSUMPTION (Gross Weight Basis) As Reported[6]				RECOVERY[5] (Recovered Metal Basis)		
Year	Total - Industry[1]	Total	Secondary Smelters	Primary[2] Producers[3]	Others[4]	Total Industry	From New Scrap	From Old Scrap
1946	312.1	312.1	215.9	90.7	5.4	252.3	170.1	82.1
1947	372.9	372.9	283.1	81.7	8.1	312.8	164.2	148.6
1948	294.4	294.4	197.5	91.1	5.8	260.2	173.4	86.8
1949	180.6	180.6	116.5	59.5	4.5	164.0	123.5	40.5
1950	247.8	247.8	174.2	62.0	11.6	221.1	151.8	69.3
1951	301.5	301.5	210.8	73.0	17.7	265.5	196.0	69.5
1952	315.5	315.5	231.4	70.7	13.3	276.3	211.6	64.7
1953	375.0	375.0	250.6	105.2	19.1	334.4	262.7	71.6
1954	318.0	318.0	216.9	83.0	18.1	284.0	223.7	60.3
1955	444.5	387.4	284.7	78.7	24.0	375.6	285.3	90.3
1956	469.0	398.6	301.0	80.5	17.0	388.3	300.3	88.0
1957	482.6	420.0	313.0	85.3	21.8	403.8	315.3	88.5
1958	390.1	340.7	250.2	70.1	20.4	321.1	249.0	72.1
1959	489.0	431.8	348.8	57.1	25.9	407.3	313.0	94.3
1960	474.5	400.5	321.0	49.3	30.1	397.3	311.1	86.2
1961	525.3	451.9	300.9	40.4	110.5	440.0	298.9	141.1
1962	635.0	539.7	401.1	33.1	105.4	527.9	376.9	151.0
1963	707.6	587.4	447.4	40.7	99.3	593.3	449.1	144.2
1964	771.1	646.1	489.0	53.5	103.7	641.4	494.4	147.0
1965	880.0	740.8	526.0	86.2	128.6	752.1	566.1	136.0
1966	979.8	813.1	579.5	113.8	119.8	805.2	635.3	169.9
1967	961.6	800.9	559.9	111.6	129.4	796.5	638.2	158.3
1968	1,105.0	920.9	634.4	138.1	148.4	904.5	740.3	164.2
1969	1,207.5	1,006.2	673.2	178.6	154.3	1,043.2	861.8	181.4
1970	1,058.7	882.3	590.0	139.0	153.3	907.2	728.5	178.7
1971	1,097.7	911.5	580.5	154.9	176.1	952.6	756.6	196.0
1972	1,217.5	1,045.5	640.9	186.2	218.4	1,021.5	794.7	226.8
1973	1,343.6	1,145.3	668.4	192.8	284.0	1,126.7	886.3	240.4
1974	1,313.6	1,094.1	571.7	216.8	305.6	1,163.0	887.2	275.8
1975	1,319.1	1,117.8	554.8	311.0	252.0	1,121.3	815.6	305.7
1976	1,579.4	1,329.5	688.6	331.3	309.6	1,334.4	963.4	371.0
1977	1,681.9	1,422.7	763.2	386.2	273.3	1,456.0	974.3	481.7
1978	1,733.6	1,466.5	800.8	396.8	268.9	1,517.7	996.1	521.6
1979	1,832.5	1,546.8	836.6	401.2	309.0	1,612.1	1,055.1	557.0
1980	1,798.1	1,536.5	802.2	491.5	242.8	1,576.7	959.8	616.9
1981	2,031.2	2,031.2	1,036.0	663.2	332.0	1,789.9	1,031.5	758.4
1982	1,900.6	1,900.6	880.0	673.1	347.5	1,665.6	883.6	782.0
1983	2,018.9	2,018.9	897.0	774.0	347.9	1,773.0	953.0	820.0
1984	2,010.0	2,010.0	872.0	782.0	356.0	1,760.0	935.0	825.0
1985	1,978.0	1,978.0	923.0	727.0	328.0	1,762.0	912.0	850.0
1986	1,986.0	1,986.0	883.0	781.0	322.0	1,773.0	989.0	784.0
1987	2,204.0	2,204.0	878.0	964.0	362.0	1,986.0	1,134.0	852.0
1988	2,348.0	2,348.0	950.0	1,025.0	373.0	2,122.0	1,077.0	1,045.0
1989	2,280.0	2,174.0	805.0	1,027.5	341.5	2,054.0 r	1,043.0 r	1,011.0 r
1990p	2,690.0	2,561.4	982.0	1,212.4	367.0	2,393.0	1,034.0	1,359.0

r-revised
p-preliminary

(1) As reported, 1946-54: estimates expanded from reported, 1955 to present
(2) For 1951-53 includes small amounts reported consumed by nonintegrated fabricators
(3) Represents 100% scrap consumption coverage by primary producers
(4) Most consumption of sweated pig apparently not reported by 'others' prior to 1961
(5) Recovery from sweated pig included in new scrap 1946-1960, old scrap 1961 to present
(6) Figures 1981 to present represent estimated full coverage

Source: U.S. Department of Interior, Bureau of Mines and U.S. Department of Commerce, Bureau of Economic Analysis

Conversion factor: One metric ton = 2,204.6 pounds

U.S. Aluminum Foreign Trade Statistics

IMPORTS ACCOUNT FOR 18.1 PERCENT OF U.S SUPPLY

For the year 1990, imports of aluminum ingot and mill products accounted for 18.1 percent of total aluminum supply in the United States. Exports comprised 14.9 percent of total industry shipments. These facts illustrate the major role of foreign trade in the U.S. aluminum industry.

1990 imports of aluminum ingot rose 3.9 percent to 2,121 million pounds as compared with 2,041 million pounds in 1989. Imports of semifabricated products also increased, rising to 1,012 million pounds, up 7.4 percent from 1989.

Exports of aluminum ingot rose in 1990 to 1,512 million pounds, a 15.4 percent increase from a 1989 level of 1,311 million pounds. Exports of semifabricated products decreased to 1,055 million pounds, a 3.7 percent drop from 1989.

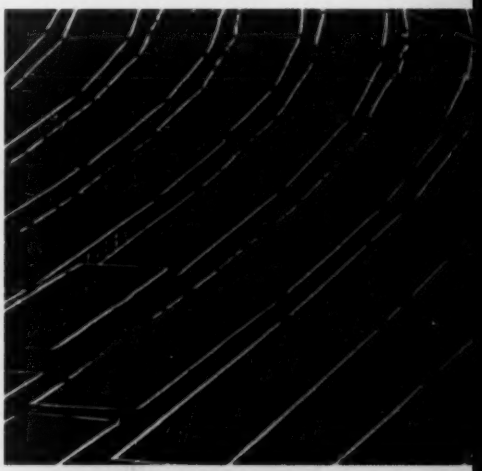
Exports of aluminum scrap showed an 8.2 percent decline to a 1,186 million pound level.

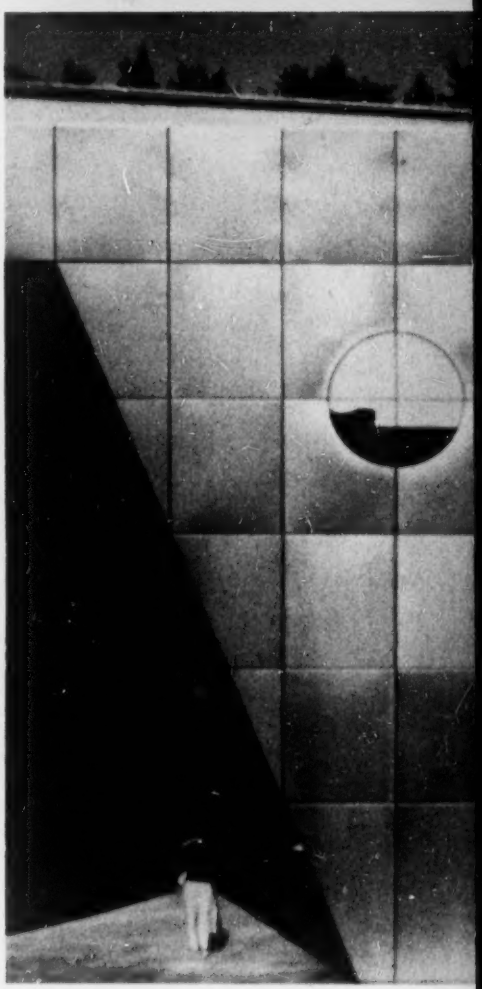
In 1990 the U.S. was a net exporter of aluminum by an amount of 35 million pounds.

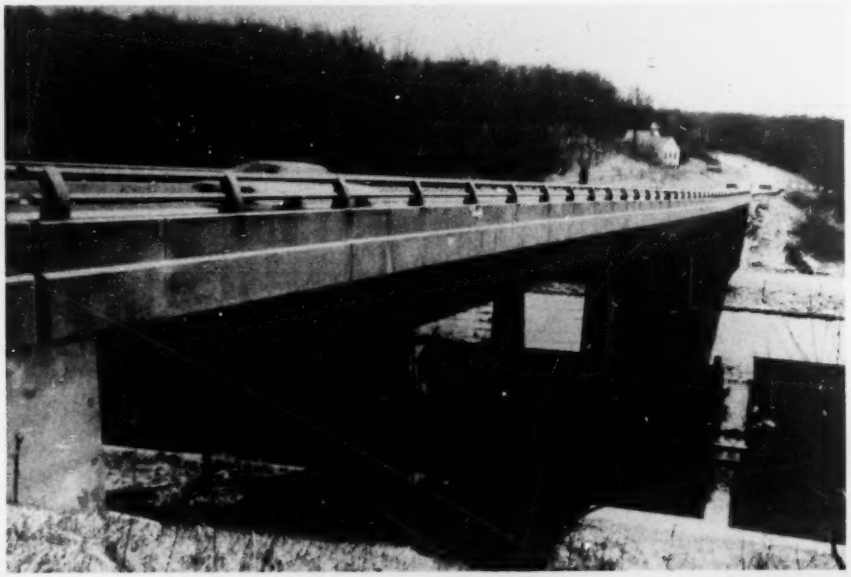
The product composition of United States imports and exports for the years 1980-1990 is graphically presented on pages 34 and 35. The data for total imports and exports as well as the detail of aluminum product imports and exports for 1990 and the preceding 10 years are tabulated on pages 36 and 37. The total imports include dross and skimmings and the gross weight of scrap. In the table on United States Supply (page 23), dross and skimmings are excluded, and the recovered weight of imported scrap is used. It is counted as part of domestic secondary recovery for the years 1972-1990 and shown as a separate supply component for years prior to 1972.

The detail of 1990 aluminum imports by product and country of origin is presented on pages 38 and 39. Similarly, the exports on a product basis by country of destination are detailed on pages 40 and 41.

For information on years prior to 1980 see the Aluminum Statistical Review-Historical Supplement.







Aluminum is used in a wide variety of applications. Pictured here are just a few products made from aluminum.

U.S. Imports

IMPORTS INCREASE 7.0 PERCENT

According to the U.S. Bureau of the Census, aluminum imports totaled 3,718 million pounds during 1990, up 7.0 percent from 1989. Ingot, which accounted for 57.0 percent of all aluminum imported during 1990 increased 3.9 percent to 2,121 million pounds. Canada, again, topped the list with imports of 2,682 million pounds, 72.1 percent of total imports.

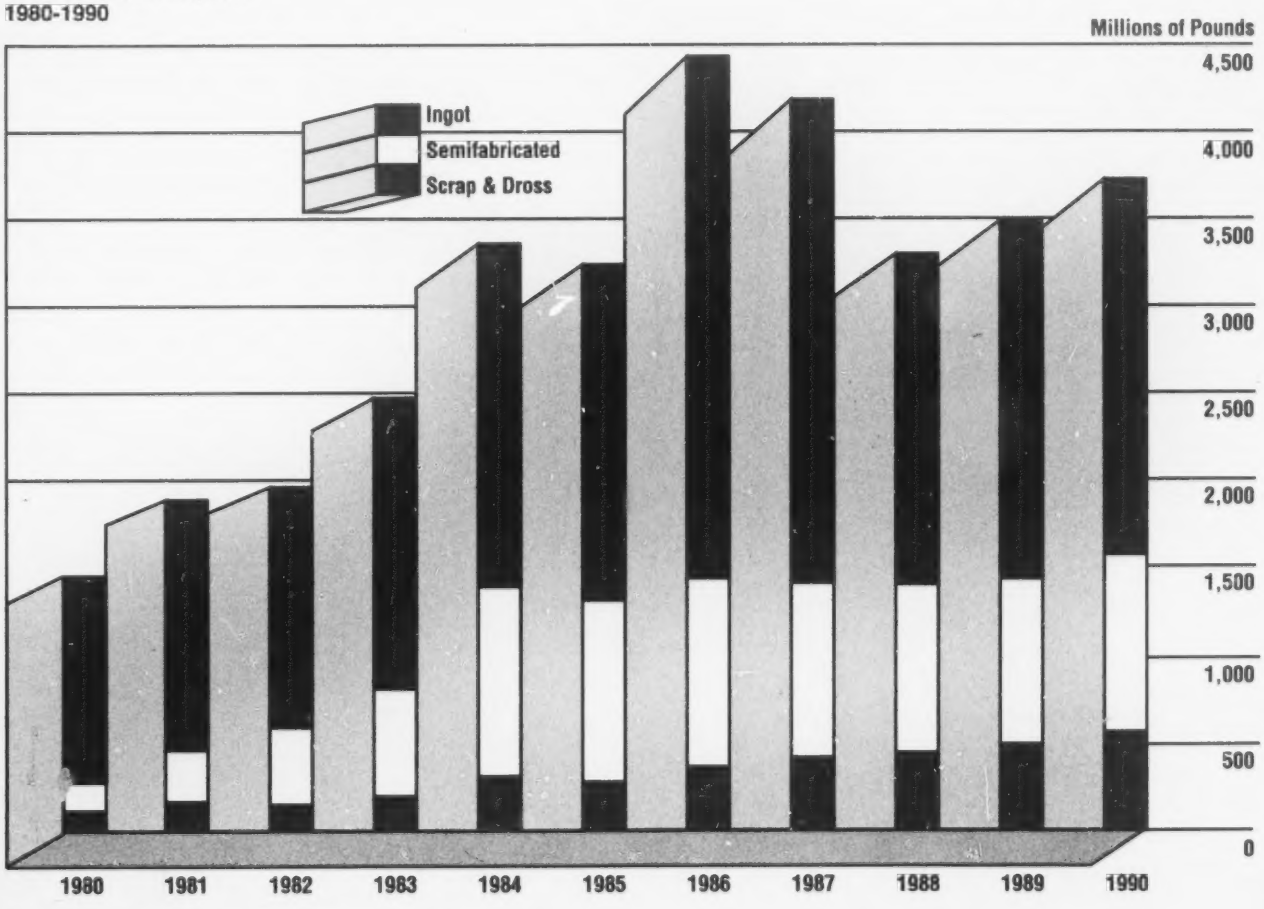
Imports of semifabricated aluminum products also increased, rising 7.4 percent to 1,012 million pounds. Canada led the list of over 49 countries exporting semifabricated products to the U.S. with a total of 390 million pounds or 38.5 percent of total semifabricated products imports. Aluminum sheet imports, at 769 million pounds, were up 12.9 percent. Canada and Japan were the largest sources at 45.2 percent and 19.1 percent of the total, respectively.

1990 scrap imports increased 19.2 percent to 585 million pounds from a 1989 level of 491 million pounds.

Penetration of the U.S. market, by imported semifabricated products, continued strong at 6.4 percent.

The graph below illustrates the trend of U.S. aluminum imports in the years 1980-1990. In addition to showing the imports of ingot, scrap, and dross and skimmings, the upper half of the table on pages 36 and 37 shows, in detail, the categories of imports of semifabricated products for the years 1980-1990. Imports of aluminum by country for the year 1990 are shown on pages 38 and 39.

U.S. Aluminum Imports 1980-1990



Source: The Aluminum Association

U.S. Exports

U.S. EXPORTS INCREASE 1.5 PERCENT

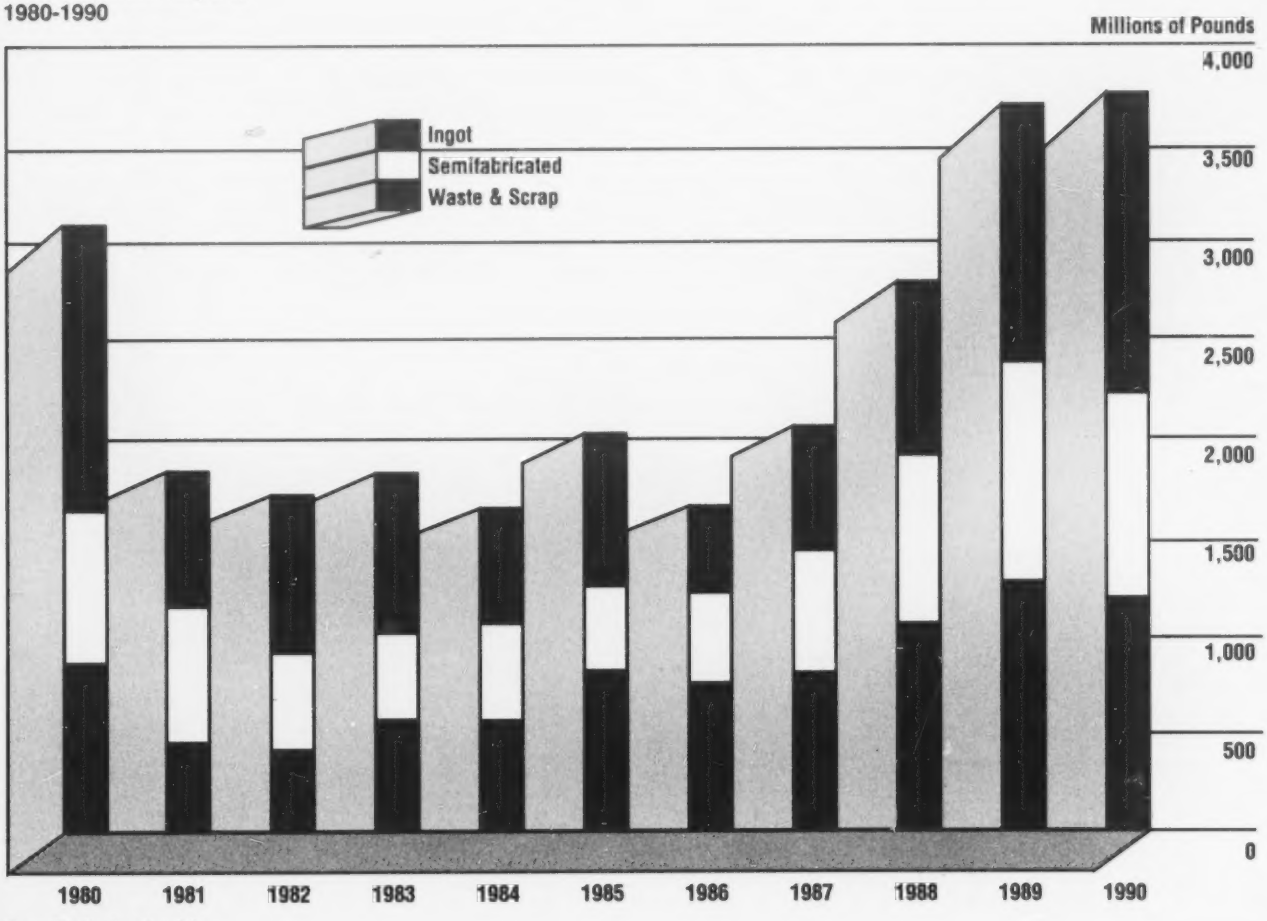
The Bureau of the Census also reported that the total aluminum exports during 1990 were 3,753 million pounds, up 1.5 percent from 1989. Ingot exports rose 15.4 percent to 1,512 million pounds from a 1989 level of 1,311 million pounds. Semifabricated exports of 1,055 million pounds decreased 3.7 percent from 1,096 million pounds in 1989. Exports of scrap dropped from 1,292 million pounds in 1989 to 1,186 million pounds in 1990, a decline of 8.2 percent.

Of the 116 countries receiving aluminum from the U.S. in 1990, Japan received 47.3 percent or 1,776 million pounds, (1,002 ingot, 736 scrap and 38 semifabricated). Exports to Canada were 907 million pounds of which 628 million pounds were semifabricated products and exports to Taiwan totaled 236 million pounds.

DESCRIPTION:

The graph below illustrates the trend of U.S. aluminum exports in the years 1980-1990. In addition to showing the exports of ingot and scrap, the lower portion of the table on pages 36 and 37 shows the detail of exports of semifabricated products for the years 1980-1990. Exports of aluminum by country for 1990 are shown on pages 40 and 41.

U.S. Aluminum Exports 1980-1990



Source: The Aluminum Association

United States Imports and Exports

United States Imports & Exports 1980-1990

Thousands of Pounds

PRODUCT	1990	1989	1988	1987	1986
Total Imports	3,717,888	3,473,349	3,691,740	4,171,462	4,426,199
Total Ingot & Semifabricated	3,133,291	2,982,768	3,234,635	3,750,942	4,062,513
Ingot	2,121,078	2,040,607	2,264,691	2,745,882	2,973,633
Semifabricated, total	1,012,213	942,161	969,944	1,005,060	1,088,880
Sheet & Plate, total	865,551	760,871	732,709	765,311	836,049
Circles & disks	32,035	33,152	31,733	35,424	32,059
Other	833,516	727,719	700,976	729,887	803,990
Foil, total	67,998	53,929	72,881	64,255	60,285
Over .00035 in.	35,508	31,771	42,063	39,491	33,218
Not over .00035 in.	32,490	19,616	27,832	21,853	24,113
Capacitor	n/a	2,542	2,985	2,910	2,954
Rod & bar	35,756	46,942	98,398	117,314	128,922
Wire, bare	15,520	46,755	17,489	11,545	14,487
ACSR & bare cable	1,650	1,836	7,998	5,594	4,930
Angles & shapes	7,869	12,688	20,185	18,687	18,459
Pipe & tube	5,800	4,031	8,465	10,270	13,452
Powder & paste	7,753	10,713	11,819	12,084	12,296
Castings	4,136	4,181	n/a	n/a	n/a
Forgings	180	214	n/a	n/a	n/a
Scrap & Dross	584,597	490,581	457,104	420,521	363,686
Total Exports	3,753,414	3,698,732	2,806,348	2,067,956	1,676,082
Total Ingot & Semifabricated	2,567,101	2,406,414	1,733,545	1,255,570	910,790
Ingot	1,512,319	1,310,618	881,976	619,859	462,068
Semifabricated, total	1,054,782	1,095,796	851,569	635,712	448,722
Sheet & Plate, total	841,259	834,028	685,398	502,877	359,818
Foil, total	47,777	77,538	34,421	32,003	13,256
Rod & bar	27,706	39,939	24,447	23,005	21,262
Wire, bare	23,045	15,936	10,731	10,141	6,755
ACSR & bare cable	15,726	12,807	4,471	1,808	1,139
Angles & shapes	48,603	43,770	25,811	28,406	15,541
Pipe & tube	21,992	16,992	17,016	14,783	9,736
Powder & paste	13,236	9,632	11,878	7,471	6,000
Castings	8,258	30,558	29,787	7,959	9,780
Forgings	7,180	14,596	7,610	7,258	5,435
Scrap & Dross	1,186,313	1,292,319	1,072,803	812,385	765,292
Net Imports *	-35,526	-225,383	885,392	2,103,506	2,750,117

Detail may not add to totals due to rounding
** - Imports less exports*
na - Not available

Note: Prior to 1980, consult The Aluminum Statistical Review - Historical Supplement

SOURCE: U.S. Department of Commerce, Bureau of the Census

1985	1984	1983	1982	1981	1980
3,223,576	3,353,255	2,465,217	1,966,647	1,894,847	1,453,529
2,935,770	3,034,098	2,255,700	1,814,325	1,725,220	1,329,404
1,915,099	1,944,381	1,637,353	1,358,751	1,421,311	1,161,328
1,020,671	1,089,717	618,347	455,574	303,909	168,076
770,093	884,498	536,059	414,819	247,139	126,117
25,936	29,144	19,131	16,404	11,673	7,757
744,157	855,354	516,929	398,415	235,466	118,360
57,176	54,005	29,238	19,328	13,430	9,099
37,733	27,045	12,345	8,749	4,791	3,532
17,891	23,631	15,226	8,708	6,608	4,116
1,552	3,329	1,666	1,870	2,031	1,452
128,703	82,269	27,435	10,057	34,238	16,343
21,105	26,966	6,444	3,202	3,220	2,256
4,472	5,337	2,021	101	8	144
16,312	12,690	3,478	1,272	1,320	1,206
7,381	8,981	3,170	1,279	1,167	682
15,430	14,971	10,503	5,515	3,388	12,228
n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a
287,806	319,156	209,518	152,322	169,627	124,125
2,030,140	1,646,169	1,819,397	1,723,285	1,852,324	3,082,645
1,204,187	1,076,484	1,240,875	1,294,687	1,370,001	2,193,283
765,648	572,316	795,216	802,348	688,321	1,429,813
438,539	504,169	445,659	492,339	681,680	763,470
329,311	402,992	318,667	323,074	411,385	425,792
12,031	11,917	10,952	12,933	21,338	37,911
22,853	22,133	24,374	51,980	102,463	136,736
8,932	6,162	9,972	11,791	24,653	57,737
5,704	5,699	35,845	46,953	70,324	29,031
11,686	11,137	10,310	9,298	8,507	25,528
10,389	10,492	9,480	13,157	15,216	16,500
6,278	8,086	5,075	6,082	6,769	16,047
20,190	21,488	18,199	14,359	17,860	14,992
7,166	4,064	2,785	2,711	3,165	3,195
825,953	569,685	578,522	428,598	482,323	889,363
1,193,436	1,707,086	645,820	243,362	42,523	-1,629,116

United States Imports by Product and Country

United States Imports by Product and Country - 1990

Thousands of Pounds

Country	Total	Ingot	Scrap Dross and Skimmings	Semi-fabricated Products	Sheet	Plate	Circles & Discs
TOTAL ALL COUNTRIES	3,717,117	2,121,078	584,597	1,011,442	769,329	64,187	32,035
NORTH AMERICA	2,681,688	1,819,709	471,665	390,313	348,035	10,093	4,722
Canada	2,681,688	1,819,709	471,665	390,313	348,035	10,093	4,722
LATIN AMERICA	462,625	267,248	100,020	95,357	45,882	8,458	6,999
Argentina	14,579	7,707	180	6,692	2,814	123	—
Bahamas	1,298	—	1,298	—	—	—	—
Brazil	106,793	86,061	604	20,128	9,984	1,182	2,199
Colombia	1,609	—	1,609	—	—	—	—
Costa Rica	7,689	16	334	7,340	943	—	—
Jamaica	2,788	—	2,788	—	—	—	—
Mexico	74,312	1,810	63,558	8,944	3,359	*	2,669
Panama	6,382	667	5,714	—	—	—	—
Trinidad	1,512	—	1,512	—	—	—	—
Venezuela	241,754	170,433	19,126	52,195	28,750	7,152	2,131
Other	3,908	553	3,297	59	31	—	—
EUROPEAN COMMUNITY	218,449	5,650	4,044	208,754	126,375	27,449	8,849
Belgium	43,793	3	89	43,702	27,006	7,630	7,191
Denmark	138	50	—	88	20	*	—
France	57,729	425	11	57,293	41,700	11,930	355
Germany, Fed. Rep.	69,820	1,143	1,764	66,913	34,171	1,373	381
Greece	2,423	21	—	2,401	398	501	240
Ireland	30	—	—	30	1	—	—
Italy	5,432	152	75	5,206	2,853	849	122
Netherlands	12,146	2,653	434	9,058	8,833	91	2
Spain	7,095	319	151	6,624	3,528	276	554
United Kingdom	19,843	885	1,520	17,438	7,867	4,799	3
OTHER EUROPE	87,469	495	6,186	80,787	46,924	13,988	1,961
Hungary	10,543	—	—	10,543	8,554	590	1,100
Sweden	7,905	5	—	7,900	4,636	10	14
Turkey	14,472	—	—	14,472	5,495	4,864	—
USSR	5,841	—	5,792	50	—	—	—
Yugoslavia	39,594	280	—	39,314	21,438	8,327	584
Other	9,113	210	395	8,509	6,801	197	263
EAST ASIA	176,955	940	1,232	174,783	147,997	2,211	8,277
China, Peoples Rep.	994	—	121	873	169	84	—
Korea, Republic	430	13	40	378	6	1	—
Hong Kong	5,333	—	26	5,306	284	335	4,640
Taiwan, R.O.C.	3,928	12	900	3,016	72	2	42
Japan	166,270	915	144	165,210	147,464	1,789	3,595
SOUTH ASIA	45,816	6,336	696	38,784	36,496	100	72
Arab Emirates	6,218	6,218	—	—	—	—	—
Bahrain	36,504	—	—	36,504	35,324	88	—
Israel	2,080	—	542	1,538	1,124	12	36
Other	1,015	118	154	743	48	—	36
OCEANIA	15,645	13,491	473	1,681	766	818	—
Australia	13,950	13,491	137	322	244	—	—
New Zealand	1,505	—	146	1,359	522	818	—
Other	190	—	190	—	—	—	—
AFRICA	28,469	7,208	280	20,981	16,854	1,069	1,154
Ghana	3,341	3,341	—	—	—	—	—
South Africa, Rep.	24,360	3,867	280	20,213	16,550	613	1,154
Other	768	—	—	768	305	457	—

(*) Indicates less than 500 pounds. Detail may not add due to rounding
Source: U.S. Department of Commerce, Bureau of the Census

Total Foil	Rod and Bar	Wire	ACSR and Bare Cable	Angles, Shapes & Sections	Pipes Tubes & Fittings	Powder and Paste	Castings	Forgings
67,998	34,984	15,520	1,650	7,869	5,800	7,753	4,136	180
9,248	2,421	8,713	922	1,808	2,903	871	576	*
9,248	2,421	8,713	922	1,808	2,903	871	576	*
9,271	16,267	3,319	422	3,141	12	1,085	501	—
88	3,384	269	—	—	—	—	15	—
—	—	—	—	—	—	—	—	—
1,881	3,127	945	—	704	—	101	5	—
—	—	—	—	—	—	—	—	—
6,396	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
1	1,197	174	—	82	*	985	476	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
906	8,559	1,931	407	2,354	4	—	—	—
—	—	—	14	—	8	—	6	—
32,974	7,181	574	22	896	1,177	2,669	439	150
187	1,622	—	—	44	2	20	*	—
16	52	—	—	1	—	—	—	—
2,037	645	140	*	18	168	242	35	23
27,354	44	100	21	745	830	1,817	44	33
1,222	—	—	—	41	—	—	—	—
*	*	*	—	—	8	18	3	—
574	290	13	—	4	2	491	1	6
41	61	*	—	4	11	6	9	—
1,381	701	11	—	—	—	—	174	—
161	3,766	311	2	39	157	74	173	87
6,532	7,278	1,788	156	256	214	1,660	7	24
67	7	—	—	—	132	91	—	—
695	1	1,098	—	11	*	1,429	4	*
3,449	173	491	—	—	—	—	—	—
—	—	—	—	—	50	—	—	—
1,237	7,074	198	156	241	20	40	—	—
1,085	23	1	*	4	11	99	2	23
7,814	1,722	1,111	125	1,405	1,426	295	2,391	7
—	216	—	—	—	*	176	222	4
79	—	—	—	46	5	—	239	*
—	—	—	—	—	10	—	37	—
11	13	*	—	699	306	7	1,862	2
7,724	1,494	1,111	125	660	1,105	112	31	*
563	—	—	—	120	68	1,170	195	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	1,091	—	—
6	—	—	—	105	41	79	136	—
557	—	—	—	15	28	—	59	—
20	57	14	3	*	*	2	—	*
6	57	13	—	*	*	2	—	—
14	—	1	3	—	*	—	—	*
—	—	—	—	—	—	—	—	—
1,575	57	—	—	243	—	—	28	—
—	—	—	—	—	—	—	—	—
1,575	57	—	—	243	—	—	21	—
—	—	—	—	—	—	—	7	—

United States Exports by Product and Country

United States Exports by Product and Country - 1990

Thousands of Pounds

Country	Total	Ingot	Waste & Scrap	Semi-fabricated Products	Sheet	Plate	Circles & Discs
TOTAL ALL COUNTRIES	3,753,414	1,512,319	1,186,313	1,054,782	731,010	107,035	3,214
NORTH AMERICA	907,106	168,022	110,740	628,344	524,932	19,960	989
Canada	907,106	168,022	110,740	628,344	524,932	19,960	989
LATIN AMERICA	283,751	62,114	55,475	166,162	86,094	29,979	100
Brazil	22,624	382	6,717	15,526	7,634	2,812	—
Colombia	3,727	72	5	3,651	2,557	920	—
Costa Rica	1,011	39	10	962	94	179	—
Dominican Republic	2,479	42	455	1,982	385	13	—
El Salvador	4,891	3,616	—	1,276	220	70	—
Guadalupe	1,073	—	35	1,039	8	—	—
Jamaica	1,857	205	129	1,523	272	410	79
Mexico	213,149	55,598	46,505	111,046	69,676	8,405	2
Panama	4,401	789	48	3,564	935	2,102	—
Peru	1,306	727	391	187	5	24	—
Trinidad	1,780	163	145	1,472	286	43	—
Venezuela	17,599	84	205	17,311	2,324	14,363	9
Other	7,852	398	830	6,624	1,697	639	10
EUROPEAN COMMUNITY	211,019	57,173	80,026	73,819	27,843	21,395	176
Belgium	9,332	477	5,940	2,916	182	1,344	125
Denmark	521	24	25	473	335	67	3
France	59,844	18,217	30,461	11,166	1,980	5,571	14
Germany, Fed. Rep.	33,523	8,214	12,171	13,138	5,368	3,757	9
Greece	345	—	247	98	19	—	—
Ireland	1,763	190	400	1,174	592	238	—
Italy	22,135	54	9,292	12,789	3,647	2,296	6
Netherlands	50,490	28,588	16,190	5,712	2,818	2,224	—
Portugal	106	1	90	16	—	—	—
Spain	3,082	111	673	2,298	993	932	—
United Kingdom	29,877	1,298	4,538	24,041	11,909	4,967	19
OTHER EUROPE	13,874	1,493	6,564	5,817	2,239	1,641	48
Finland	3,678	1	3,182	495	88	31	4
Sweden	3,569	407	551	2,612	1,663	675	—
Norway	3,115	108	2,589	418	27	108	—
Switzerland	1,820	964	100	756	297	91	39
Turkey	777	—	—	777	1	629	—
Other	915	13	142	760	162	108	6
EAST ASIA	2,215,146	1,174,728	922,260	118,158	75,077	11,150	1,860
China, Peoples Rep.	20,228	1,822	7,895	10,511	7,374	27	63
Hong Kong	17,187	4,716	3,344	9,127	5,985	337	793
Japan	1,776,050	1,001,603	736,412	38,035	24,700	3,360	799
Korea, Rep. of	165,905	88,519	51,390	25,996	15,863	3,128	33
Taiwan, R.O.C.	235,777	78,069	123,220	34,489	21,156	4,298	172
SOUTH ASIA	114,026	48,153	8,978	56,895	14,052	22,476	38
Thailand	40,390	31,076	2,784	6,530	4,197	15	—
Saudi Arabia	24,798	208	—	24,591	1,231	18,407	—
Singapore	11,028	6,234	716	4,078	994	780	—
Philippine Rep.	9,617	6,062	2,023	1,532	756	1	18
Malaysia	5,182	755	226	4,201	3,427	8	6
Israel	9,771	1,934	—	7,837	1,655	1,704	—
Other	13,240	1,885	3,229	8,126	1,792	1,561	13
OCEANIA	4,045	515	92	3,438	527	374	2
Australia	2,188	54	7	2,127	427	301	2
New Zealand	1,761	462	84	1,215	36	72	—
Other	96	—	—	96	64	1	—
AFRICA	4,447	121	2,177	2,149	245	59	—
South Africa	2,680	9	2,131	539	59	5	—
Egypt	973	76	—	898	68	39	—
Ghana	344	36	—	307	7	16	—
Other	451	—	46	405	113	—	—

(*) Less than 500 pounds
Detail may not add due to rounding

Source: U.S. Department of Commerce, Bureau of the Census

Foil	Rod and Bar	Wire	ACSR & Bare Cable	Angles, Shapes & Sections	Pipes & Tubes	Powder & Paste	Castings	Forgings
47,777	27,706	23,045	15,726	48,603	21,992	13,236	6 258	7,180
27,750	8,507	9,948	201	16,228	12,333	4,566	2,345	585
27,750	8,507	9,948	201	16,228	12,333	4,566	2,345	585
6,861	4,691	6,438	5,962	13,438	4,883	3,469	4,077	171
1,341	275	233	—	1,338	386	1,456	1	50
1	9	48	—	2	12	55	47	—
45	13	127	—	440	64	—	—	—
79	56	217	—	918	285	24	5	—
331	532	2	113	1	3	3	—	—
—	—	—	—	1,018	—	13	—	—
261	10	81	135	129	142	4	—	—
3,187	3,448	5,124	5,056	7,831	3,024	1,387	3,839	68
323	—	192	—	8	2	—	—	—
—	—	19	12	13	91	23	—	1
249	27	96	—	670	100	3	*	—
71	151	52	*	19	101	215	5	—
973	170	245	646	1,050	673	289	180	53
1,435	9,078	2,671	151	3,329	1,478	2,694	1,077	2,493
480	15	273	—	84	46	21	309	36
10	1	3	8	*	—	—	35	10
86	266	268	113	314	123	1,501	52	877
123	1,868	748	2	158	254	209	262	380
—	2	3	—	36	—	37	*	1
2	21	16	7	116	2	7	19	153
13	5,041	732	—	109	18	544	43	340
339	28	36	4	73	126	21	3	39
—	7	—	—	—	—	7	3	—
153	18	9	1	24	8	16	55	89
228	1,810	583	16	2,412	901	331	295	568
156	93	402	1	653	187	188	51	155
2	—	36	—	332	1	—	—	—
29	11	31	—	128	31	1	2	40
—	28	212	—	15	3	1	24	—
12	34	36	1	81	69	58	6	33
5	4	86	—	14	7	20	—	11
108	15	2	*	84	76	108	20	71
3,008	3,923	2,072	6,955	8,847	1,919	1,288	335	1,722
75	109	1	2,417	372	1	*	26	46
912	60	281	*	121	420	43	174	1
1,366	2,660	445	59	1,834	298	971	93	1,451
133	918	215	5	4,870	469	133	11	217
522	176	1,130	4,474	1,650	732	140	32	8
8,075	554	751	2,440	5,006	646	604	254	2,001
274	121	156	—	1,563	72	90	43	—
4,549	171	41	6	45	55	80	—	5
835	84	88	4	999	9	112	133	41
55	18	74	*	59	403	112	1	34
—	33	48	*	639	*	17	23	—
484	98	204	22	1,536	68	140	43	1,883
1,877	29	140	2,408	165	39	53	11	38
103	237	666	13	1,080	249	108	26	53
45	237	643	11	35	243	106	26	52
29	—	23	2	1,045	5	2	—	1
30	—	—	—	—	1	—	—	—
391	624	96	3	21	297	318	93	*
8	185	13	1	2	23	243	2	*
329	269	—	—	—	192	—	1	—
36	162	65	2	15	5	—	—	—
18	8	19	—	5	77	75	91	—

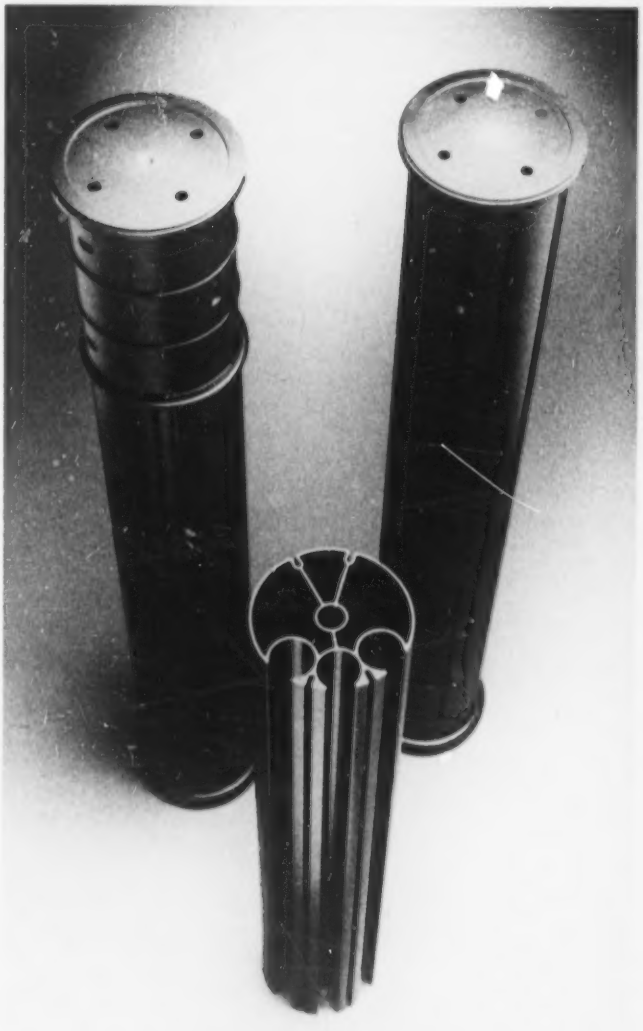
World Aluminum Statistics

The aluminum industry is international by its very nature. From the extraction of its basic source material at bauxite sites located in a number of countries throughout the world to its fabrication and distribution in every nation on earth, the aluminum industry should be viewed in a world-wide perspective. This section attempts to provide data on two of the key aspects of world aluminum, world primary aluminum production and the apparent per capita consumption of aluminum for selected countries.

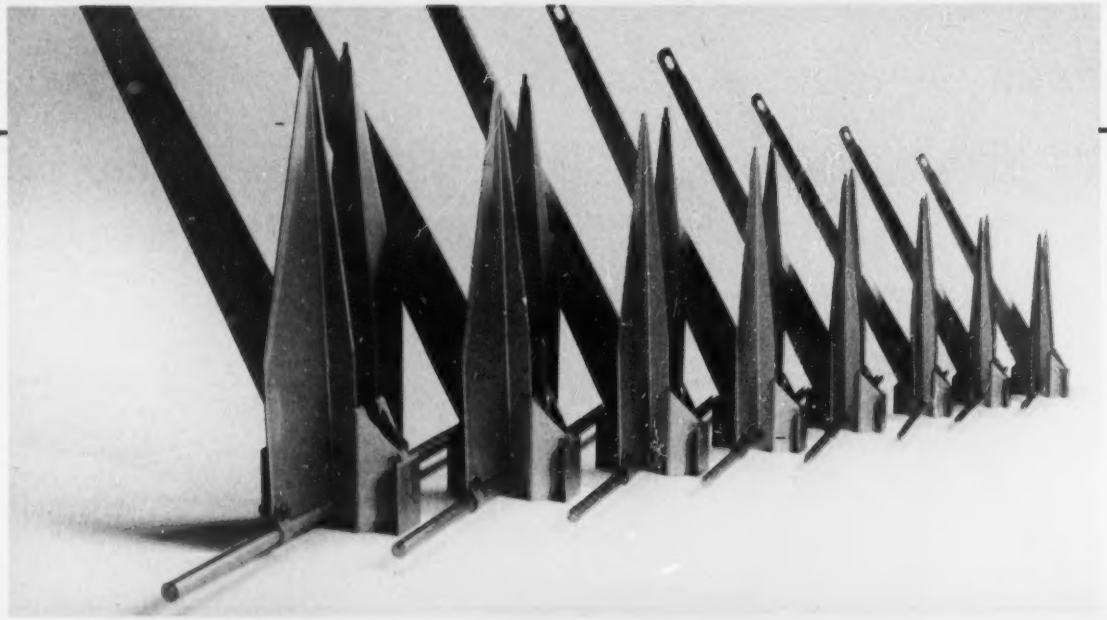
World production of primary aluminum in 1990 is estimated to have been 17,832 thousand metric tons, down 1.0 percent from 1989. World primary aluminum production is presented by country for the years 1980-1990 on page 45.

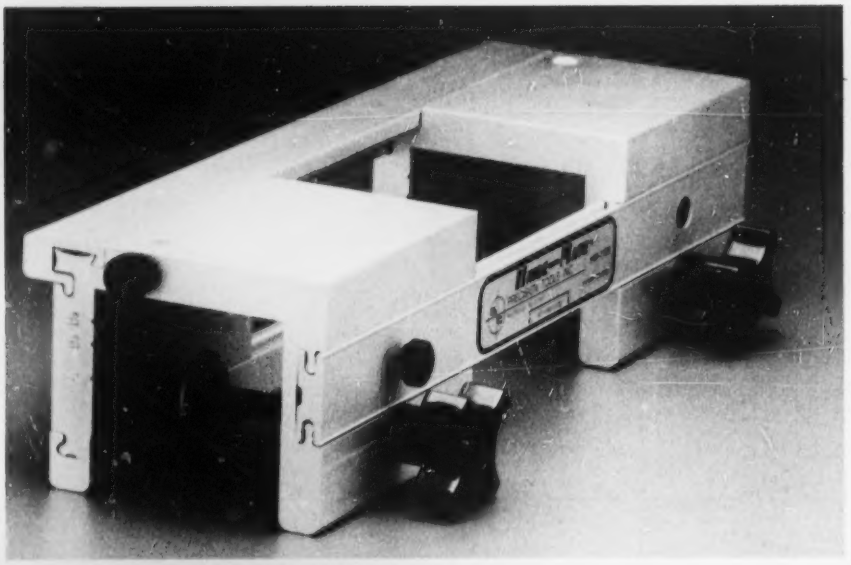
Data on the consumption of aluminum, on a per capita basis, are presented for 39 countries. These countries represent about three-quarters of the world's production of primary aluminum. The data are presented in a uniform statistical format for the years 1980-1990. The data for supply and consumption show ingot and mill product detail for imports and exports. Midyear population figures are presented as part of the calculation of consumption on a per capita basis for each country.

World aluminum statistical data is presented in metric tons, with one exception: the per capita aluminum consumption summary on page 47 is expressed in pounds per person per year. Individual country data tables show per capita consumption in kilograms.



Extrusions play a major role in the aluminum's success story. U.S. domestic shipments of aluminum extruded shapes, pipes & tubes, and rod & bar totaled 2.7 billion pounds in 1990. Pictured here are winners of the 1990 International Aluminum Extrusion Design Competition.





World Primary Aluminum Production

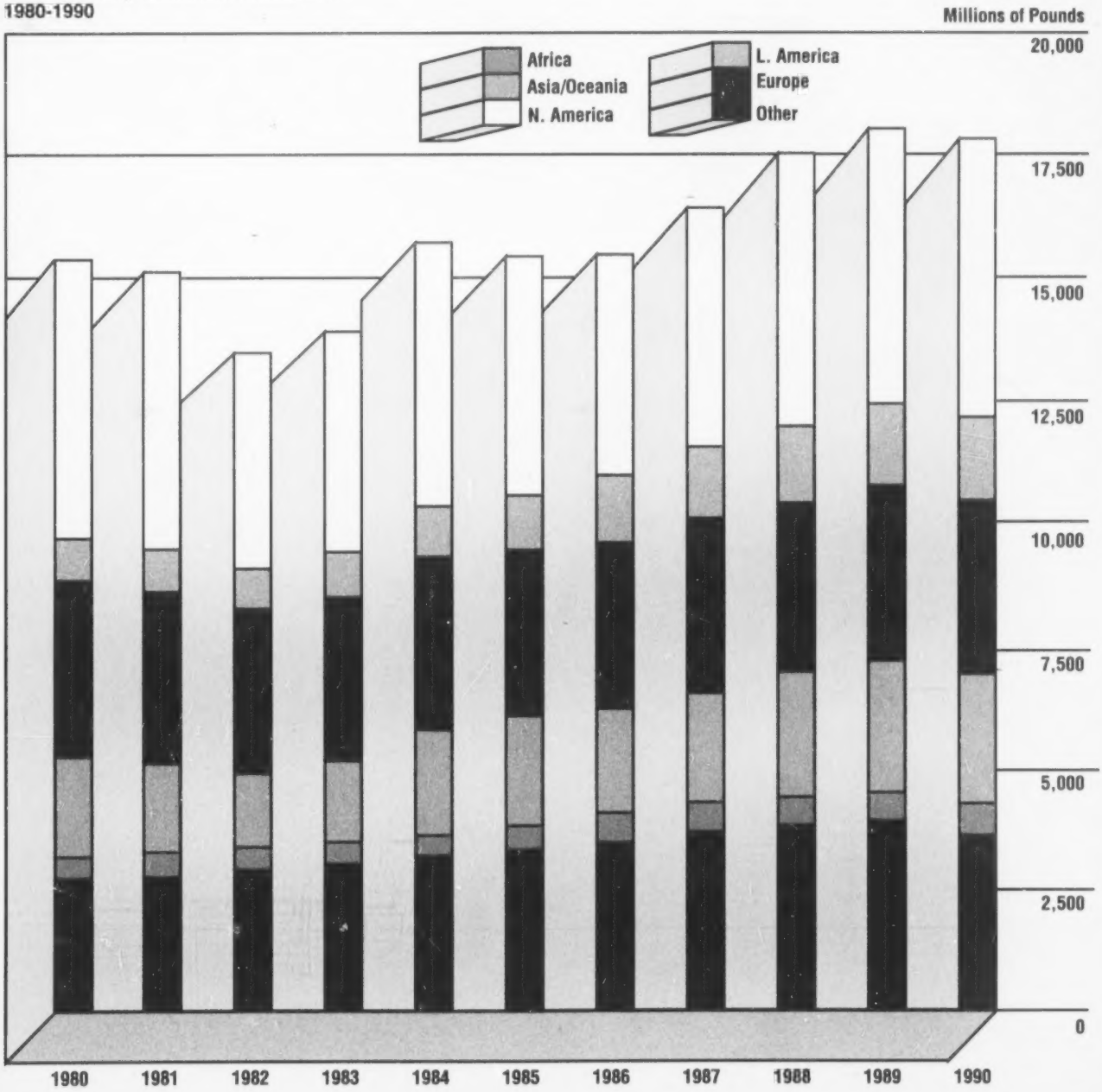
WORLD PRODUCTION DOWN 1.0 PERCENT

Estimated 1990 world production of primary aluminum totaled 17,832 thousand metric tons, down 1.0 percent from the revised estimate of 18,020 thousand metric tons in 1989 according to Bureau of Mines data.

Over the decade 1980-1990, world production increased 15.9 percent, an annual growth rate of 2.3 percent.

The United States accounted for 22.7 percent of the world's 1990 production while Europe accounted for 20.0 percent. The remaining 57.3 percent includes Asia (6.3 percent), Canada (8.8 percent), South America (9.8 percent), Oceania (8.4 percent), Africa (3.4 percent), and others (22.6 percent).

World Primary Aluminum Production 1980-1990



World Primary Aluminum Production
1980-1990

Thousands of Metric Tons

Country	1990 p	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
TOTAL WORLD [1]	17,832	18,020 r	17,500 r	16,420 r	15,412 r	15,398	15,705	13,904	13,433	15,079	15,383
AFRICA	610	607 r	591 r	579	554	513	410	420	500	473	437
Cameroon	91	92 r	87	79	84	90	73	77	79	65	43
Egypt	179	180 r	173	179	175	209	170	140	141	134	120
Ghana	174	169	161	150	125	49	—	42	174	190	188
South Africa	166	166 r	170 r	171	170	165	167	161	106	84	87
NORTH AMERICA	5,618	5,585	5,479	4,883	4,392	4,782	5,321	4,444	4,339	5,605	5,722
Canada	1,570	1,555	1,535	1,540	1,355	1,282	1,222	1,091	1,065	1,116	1,068
United States	4,048	4,030	3,944	3,343	3,037	3,500	4,099	3,353	3,274	4,489	4,654
LATIN AMERICA	1,742	1,692 r	1,543 r	1,486 r	1,389 r	1,153	1,048	938	795	788	821
Argentina	162	162 r	154	153	148	136	134	133	138	134	133
Brazil	931	890 r	874	843	757	549	455	401	299	256	261
Mexico	83	72	68 r	60 r	37	43	44	40	41	43	43
Suriname	20	28 r	10	2	29	29	29	29	43	41	55
Venezuela	546	540 r	437 r	428 r	418 r	396	386	335	274	314	328
ASIA	1,122	1,135 r	1,055 r	952 r	1,068	1,148	1,185	980	1,027	1,322	1,560
Bahrain	188	187 r	183 r	180	178	176	177	172	171	130	126
India	433	423 r	375	265	257	260	269	204	217	213	185
Indonesia	186	197 r	185	202	219	217	199	115	33	—	—
Iran	49	45 r	40	45 r	40	43	42	39	45	13	16
Japan	34	35	35	41	140	227	287	256	351	771	1,091
Korea, Republic of	4	18 r	18	22	19	18	18	13	15	18	18
Taiwan	—	—	—	—	—	—	—	—	10	31	64
Turkey	60	62 r	57	42	60	54	38	30	36	40	34
United Arab Imirates	168	168 r	162	155	155	153	155	151	149	106	25
EUROPEAN COMMUNITY	2,381	2,372 r	2,346	2,332	2,351	2,283	2,403	2,282	2,340	2,583	2,598
France	326	335	328	323	322	293	342	361	390	436	432
Germany, Fed. Rep.[4]	770	742	744	738	765	745	777	743	723	729	731
Eastern States	50										
Western States	720										
Greece	150	148 r	151	127	124	125	136	136	135	146	146
Italy	232	219 r	222	233	243	224	230	196	233	274	271
Netherlands	258	279 r	278	276	266	251	249	235	251	262	259
Spain	355	352	323	341	355	370	381	358	367	397	386
United Kingdom	290	297	300	294	276	275	288	253	241	339	374
OTHER EUROPE	1,190	1,213	1,212	1,185 r	1,033	1,067	1,103	1,041	961	967	988
Austria	89	93	95	93	93	94	96	94	94	94	94
Iceland	88	89	82	85	76	73	80	76	75	74	73
Norway	845	863 r	864	853 r	726	743	765	713	638	634	653
Sweden	96	97	99	81	78	84	83	82	79	83	82
Switzerland	72	71	72	73	80	73	79	76	75	82	86
OCEANIA	1,494	1,502 r	1,414	1,256	1,118	1,092	1,001	697	544	533	458
Australia	1,234	1,244	1,150	1,004	882	851	758	478	381	379	303
New Zealand	260	258 r	264	252	236	241	243	219	163	154	155
OTHER	3,675	3,914 r	3,860 r	3,747	3,487	3,360	3,234	3,102	2,927	2,808	2,799
China, P.R.[1]	850	750 r	710 r	615	410	410	400	400	380	350	360
Czechoslavakia [1][2]	32	33 r	31 r	32	33	32	32	36	34	33	38
German D.R. [1][4]	—	54 r	61	62	61	60	58	57	58	60	60
Hungary	75	75	75	76	74	74	74	74	74	74	73
Korea, Peop. Rep.	—	10	10	10	10	10	10	10	10	10	10
Poland [3]	48	48 r	48	48	48	47	46	44	43	66	95
Romania	180	269 r	265 r	260	269	247	244	223	208	242	241
U.S.S.R [1]	2,200	2,400	2,400	2,400	2,300	2,200	2,100	2,000	1,900	1,800	1,760
Yugoslavia	290	275 r	260	244	282	280	270	258	220	173	161

Detail may not add due to rounding
r-revised
p-preliminary

(1) Estimated by the Bureau of Mines, U.S. Department of Interior
(2) Includes secondary unalloyed ingot
(3) Includes primary alloyed ingot
(4) German Democratic Republic & Federal Republic of Germany combined in 1990

Source: Bureau of Mines, U.S. Department of Interior

Aluminium Supply and Apparent Consumption —

PER CAPITA CONSUMPTION DOWN 4.5 PERCENT

Per capita aluminum consumption for those countries which provided both 1989 and 1990 data, decreased an average of 4.5 percent in 1990 as compared with 1989. Of the 29 countries which responded to the 1990 survey, 13 (45%) showed increased usage in 1990 while the remainder, 16 (55%) indicated decreased or steady usage.

In 1990, the United States was the third largest user of aluminum on a per capita basis (59.2 pounds; 26.9 Kg.). The largest user was Japan, (68.1 pounds; 30.9 Kg.), followed by West Germany (63.9 pounds; 29.0 Kg.), and Canada (50.1 pounds; 22.7 Kg.).

The format for compiling total supply and apparent consumption data is shown below.

Per Capita Aluminum Consumption Formula

1.	+	Primary aluminum production
2.	±	Government stockpile adjustment
3.	+	Imports of ingot
4.	+	Imports of mill products (aluminum alloy weight)
5.	+	Recovery of secondary aluminum alloys (from domestic and imported scrap)
6.	−	Exports of ingot
7.	−	Exports of mill products (aluminum alloy weight)
8.	=	Apparent aluminum consumption
9.	+	Beginning of year inventory
10.	−	End of year inventory
11.	±	Inventory change
12.	=	Aluminum consumption (with inventory change)
13.	÷	Mid-year population
14.	=	Per capita consumption (Kg.) (without inventory change)
15.	=	Per capita consumption (Kg.) (with inventory change)

DESCRIPTION:

The Aluminum Association, in conjunction with industry associations in foreign countries, and, in some instances appropriate government agencies, is developing a joint program to compile uniform statistical data showing total supply and apparent consumption. Total supply for an individual country consists of primary production, imports, and secondary recovery. Apparent consumption is equal to the sum of these sources of total supply less exports and inventory changes. Production of primary aluminum for the foreign countries is tabulated for the years 1980-1990 on page 45.

The tables on pages 48-61 show total supply and apparent consumption corresponding to the above format for the following countries:

Argentina
Australia
Austria
Bahrain
Belgium
Brazil
Cameroon
Canada
Denmark
Finland
France
Germany
Greece
Hungary
Iceland
India
Ireland
Italy
Japan
Korea, Rep.
Mexico
Netherlands
New Zealand
Norway
Panama
Philippines
Portugal
El Salvador
Saudi Arabia
Singapore
South Africa
Spain
Sweden
Switzerland
Taiwan
Turkey
United Kingdom
United States
Venezuela

In order to develop a basis for showing relative aluminum usage by country and to provide a measure of trend over time, per capita consumption data have been calculated for each country. For this purpose mid-year population estimates have been used. It is important to emphasize that these estimates are not the only way of measuring relative consumption data among countries. Obviously, the composition of a country's population, standard of living, industrialization, climate, availability and economies of other materials, and a number of other important considerations affect the per capita use of aluminum. The formula is used because it is simple and permits the Association to compile data for more countries, with their cooperation, than can be compiled using more detailed information.

When data for individual lines are not available or are not appropriate, they are omitted. Inventory changes cover suppliers' inventories only. Consumption estimates exclude changes in customer inventories.

The components of the formula are numbered and cross referenced to the country details on pages 41-61.

A summary of per capita consumption covering the years 1980-1990 for each of the countries is shown on page 46 in pounds.

Conversion factor:
One metric ton = 2,204.6 pounds.

Selected Countries

Per Capita Aluminum Consumption of Selected Countries 1980-1990

Pounds per person per year *(a)*

	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
Argentina *	2.9	3.6	5.0	5.5	4.7	2.7	5.6	5.4	4.8	4.0	4.8
Australia *	40.9	43.3	44.8	41.5	38.1	39.9	36.6	33.8	36.7	46.9	38.9
Austria *	47.3	47.7	40.0	31.2	32.0	27.7	28.9	25.6	23.8	26.5	27.6
Bahrain *	—	—	—	—	—	24.8	22.0	18.9	10.7	12.6	20.4
Belgium	26.6	16.3	23.0	17.0	22.9	21.0	25.5	20.9	20.5	16.2	20.6
Brazil *	4.6	5.9	5.8	6.4	6.8	5.8	4.8	4.9	5.4	5.1	6.5
Cameroon	2.8	3.5	2.6	3.8	4.5	4.7	4.4	2.0	3.6	3.4	6.3
Canada *	50.1	61.3 r	59.0	48.7	42.4	45.1	43.6	32.1	37.2	36.1	35.5
Denmark	21.4	na	22.9	18.9	21.1	19.4	20.1	30.2	30.5	27.3	27.6
Finland	13.1	24.0 r	23.1	20.8	19.6	14.3	13.0	11.5	14.6	14.1	14.3
France *	38.4	37.7 r	36.3 r	32.2 r	31.4 r	29.0 r	27.4 r	28.8	29.1	27.6	31.5
Germany, Federal Republic *	63.9	64.4 r	60.0	57.9	56.3	54.7	53.4	42.3	46.4	42.6	54.8
Greece	na	na	na	1.2	12.5	8.6	11.4	10.8	10.6	13.0	13.0
Hungary *	30.8	33.8	35.6	37.3	36.6	34.8	33.9	33.0	32.7	33.1	32.4
Iceland	21.5	22.7	25.4	23.2	18.1	17.3	19.3	27.8	23.5	27.9	22.2
India	1.2	1.2	1.0	1.0	0.9	0.9	1.0	0.7	0.7	0.8	0.9
Ireland	13.5	11.4	9.7	11.6	11.0	10.0	11.4	8.3	8.8	9.1	9.7
Italy *	45.0	41.3	39.7	36.3	32.2	30.1	29.6	29.2	27.2	27.6	32.3
Japan *	68.1	65.1	61.8	47.8	44.6	47.4	41.3	44.4	41.0	37.8	42.9
Korea, Republic of	na	na	na	na	na	9.9	9.9	9.3	7.5	6.8	4.2
Mexico *	5.7	3.3	2.5	2.9	2.8	4.6	3.5	2.5	4.8	6.5	5.6
Netherlands *	35.4	38.6	38.6	32.4	33.1	29.5	27.7	23.5	25.1	20.1	27.2
New Zealand *	22.6	24.6	22.8	26.3	22.4	22.2	20.9	18.4	15.5	20.5	17.1
Norway *	32.8	58.6	46.8	32.0	40.7	45.0	48.0	29.4	60.4	41.7	50.0
Panama	5.2	4.6	3.0	3.7	1.7	1.7	4.8	3.1	1.8	2.3	2.0
Philippines, Republic of	na	na	na	0.5	0.3	0.3	0.4	0.6	1.0	0.4	0.8
Portugal	13.7	13.1 r	11.8 r	12.1 r	11.3 r	9.4 r	6.9	10.0	11.0	11.0	8.5
El Salvador	0.7	0.7	0.7	0.7	0.4	0.1	0.4	1.1	0.6	0.7	0.4
Saudi Arabia, Kingdom of	na	na	18.7	16.1	13.0	30.2	19.8	46.3	9.5	25.1	24.7
Singapore, Republic of	41.9	4.1	45.8	49.8	25.5	25.8	26.1	22.9	22.9	25.7	20.2
South Africa, Republic of *	na	na	11.4	9.3	9.2	9.3	9.4	9.2	9.0	10.2	9.9
Spain *	16.3	15.5	15.3	14.7	12.5	10.0	9.7	11.8	12.1	11.5	14.2
Sweden *	49.6	49.6	50.0	47.2	45.2	45.4	45.6	42.1	39.9	34.8	34.4
Switzerland *	49.8	53.5 r	41.8	41.4	45.0	41.7	40.2	32.8	32.8	34.1	37.7
Taiwan, Republic of China *	na	na	na	na	na	17.1	12.6	19.6	13.7	14.5	13.5
Turkey, Republic of	5.5	3.5	4.0 r	5.6 r	3.8 r	4.6 r	4.8	4.7	5.4	8.8	2.3
United Kingdom	26.4	25.3	25.1	24.1	22.8	21.8	23.7	20.9	18.6	17.1	18.0
United States *	59.2	56.9	60.6	61.6	58.1	58.7	59.4	57.8	51.0	55.2	56.7
Venezuela *	na	na	na	na	14.5	10.6	12.8	12.2	14.0	9.5	15.3

** Adjusted for inventory change*
r - revised
na - Not available at publication
(a) See individual countries for kilogram measures

Per Capita Aluminum Consumption

ARGENTINA

Thousands of Metric Tons

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	163.0	162.0	155.1	152.5	147.6	136.2	133.7	132.8	137.5	134.1	133.1
4.	+ Imports of Mill Products	1.0	1.3 r	2.3	3.5	1.4	1.0	0.9	1.1	10.5	5.1	4.0
5.	+ Recovery of Secondary	6.0	5.3	7.1	7.7	6.5	3.7	7.5	7.0	6.0	5.0	7.0
6.	- Exports of Ingot	121.0	41.4	10.9	13.8	34.8	66.1	30.1	43.8	67.6	88.2	63.4
7.	- Exports of Mill Products	29.7	48.5	78.3	73.3	60.6	45.1	29.7	16.5	16.4	11.3	8.9
8.	= Apparent Aluminum Consumption	19.3	78.7 r	75.3	76.6	60.2	29.7	82.3	80.6	70.0	44.7	71.8
11.	+ Inventory Change	-23.3	25.7	4.1	-0.6	-5.5	-7.1	6.5	8.6	7.0	-6.8	10.0
12.	= Aluminum Consumption	42.6	53.0 r	71.2	77.2	65.7	36.8	75.8	72.0	63.0	51.5	61.8
13.	Mid-Year Population (Millions)	32.6	32.2	31.7	31.2	31.0	30.6	30.1	29.6	29.2	28.7	28.2
14.	= Per Capita Consumption (kg) (1)	0.6	2.4	2.4	2.5	1.9	1.0	2.7	2.7	2.4	1.6	2.5
15.	= Per Capita Consumption (kg) (2)	1.3	1.6	2.2	2.5	2.1	1.2	2.5	2.4	2.2	1.8	2.2

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change
r — revised

Source: Ministerio de Defensa and Aluminio Argentino, SAIC

AUSTRALIA

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	1,232.7	1,242.0	1,141.3	1,024.2	875.0	851.2	756.7	474.1	380.2	378.7	302.5
3.	+ Imports of Ingot	1.0	3.0	2.3	-	0.1	0.6	0.5	4.5	13.2	8.4	8.0
4.	+ Imports of Mill Products	22.3	18.7	14.5	12.4	8.4	10.2	8.7	6.4	13.1	14.4	10.7
5.	+ Recovery of Secondary	32.9	48.4	46.5	39.0	30.0	45.6	43.3	37.7	40.7	44.4	38.0
6.	- Exports of Ingot	937.3	923.4	812.2	737.0	588.0	577.2	477.3	215.8	185.6	122.6	35.6
7.	- Exports of Mill Products	49.2	52.0	54.1	57.9	56.4	54.0	58.8	49.5	32.6	25.4	18.4
8.	= Apparent Aluminum Consumption	302.4	336.7	338.3	280.7	269.1	276.4	273.1	257.4	229.1	297.9	305.3
11.	+ Inventory Change	-14.6	6.7	3.3	-24.3	-6.5	-8.5	14.6	21.7	-23.7	-19.0	47.4
12.	= Aluminum Consumption	317.0	330.0	335.0	305.0	275.6	284.9	258.5	235.8	252.7	316.9	257.9
13.	Mid-Year Population (Millions)	17.1	16.8	16.5	16.2	16.0	15.8	15.5	15.4	15.2	14.9	14.6
14.	= Per Capita Consumption (kg) (1)	17.7	20.0	20.5	17.3	16.8	17.5	17.6	16.7	15.1	20.0	20.9
15.	= Per Capita Consumption (kg) (2)	18.6	19.6	20.3	18.8	17.3	18.1	16.6	15.3	16.6	21.3	17.7

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Aluminium Development Council, Australia

AUSTRIA

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	89.4	92.9	95.5	93.4	92.5	94.1	95.8	94.2	93.9	94.2	94.4
3.	+ Imports of Ingot	109.0	97.8	76.4	61.3	78.9	65.4	61.4	40.2	38.7	33.2	35.2
4.	+ Imports of Mill Products	63.6	70.1	52.0	63.6	54.8	54.9	52.3	48.5	42.4	37.6	39.2
5.	+ Recovery of Secondary	35.7	34.1	29.4	27.2	24.7	21.1	21.6	16.1	14.2	13.8	14.3
6.	- Exports of Ingot	20.7	20.0	21.0	33.7	28.3	26.7	25.5	25.6	25.6	25.0	9.8
7.	- Exports of Mill Products	115.8	110.5	99.9	116.9	105.3	110.1	100.0	101.4	78.6	69.1	66.4
8.	= Apparent Aluminum Consumption	161.2	164.4	132.4	94.9	117.3	98.7	105.6	72.0	85.0	84.6	107.0
11.	+ Inventory Change	-4.4	-	-5.4	-12.5	7.1	4.5	7.0	-14.7	3.8	-5.4	13.0
12.	= Aluminum Consumption	165.6	164.4	137.8	107.4	110.2	94.2	98.6	86.7	81.2	90.0	94.0
13.	Mid-Year Population (Millions)	7.7	7.6	7.6	7.6	7.6	7.5	7.5	7.5	7.5	7.5	7.5
14.	= Per Capita Consumption (kg) (1)	20.9	21.6	17.4	12.5	15.4	13.2	14.1	9.6	11.3	11.3	14.3
15.	= Per Capita Consumption (kg) (2)	21.5	21.6	18.1	14.1	14.5	12.6	13.1	11.6	10.8	12.0	12.5

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Fachverband der Metallindustrie Österreichs

BAHRAIN

Thousands of Metric Tons

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	214.0	187.0	183.0	182.0	176.6	175.5	175.8	171.7	171.0	142.0	126.1
5.	+ Recovery of Secondary	3.0	2.0	2.0	-	1.5	-	-	-	1.5		
6.	- Exports of Ingot	122.0	116.0	114.0	129.0	199.9	133.0	168.3	190.5	157.0	83.0	78.0
7.	- Exports of Mill Products	50.0	38.0	42.0	33.0	-	15.2	13.2	18.0	12.0	15.0	17.0
8.	= Apparent Aluminum Consumption	45.0	35.0	29.0	20.0	-21.8	27.3	-5.7	-36.8	3.5	44.0	31.1
9.	+ Beginning Inventory	17.0	11.0	13.0	16.1	64.7	41.9	51.6	91.7	90.0	48.0	20.0
10.	- Ending Inventory	11.0	17.0	11.0	13.0	16.1	64.7	41.9	51.6	91.7	90.0	48.0
11.	= Inventory Change	-6.0	6.0	-2.0	-3.1	-48.6	22.8	-9.7	-40.1	1.7	42.0	28.0
12.	= Aluminum Consumption	51.0	29.0	31.0	23.1	26.8	4.5	4.0	3.3	1.8	2.0	3.1
13.	Mid-Year Population (Millions)	0.50	0.49	0.47	0.42	0.41	0.40	0.40	0.38	0.37	0.35	0.34
14.	= Per Capita Consumption (kg) (1)	89.5	71.6	61.3	48.1	-53.0	68.3	-14.3	-95.8	9.4	125.4	92.8
15.	= Per Capita Consumption (kg) (2)	101.4	59.3	65.5	55.5	65.2	11.3	10.0	8.6	4.9	5.7	9.3

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Aluminum Barhrain B.S.C.

BELGIUM

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
3.	+ Imports of Ingot	367.5	358.1	355.1	315.5	307.4	307.9	311.0	289.7	267.4	245.0	252.5
4.	+ Imports of Mill Products	162.0	141.7	150.0	121.8	109.9	95.7	93.8	90.5	86.9	62.9	64.9
6.	- Exports of Ingot	32.9	35.4	32.9	27.6	24.9	23.0	10.3	17.3	13.8	29.7	19.6
7.	- Exports of Mill Products	376.4	390.8	369.1	333.5	289.4	286.5	280.6	269.1	248.5	206.3	205.1
8.	= Apparent Aluminum Consumption	120.2	73.6	103.1	76.2	103.0	94.1	113.9	93.8	92.0	71.9	92.7
13.	Mid-Year Population (Millions)	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.8	9.9
14.	= Per Capita Consumption (kg) (1)	12.1	7.4	10.4	7.7	10.4	9.5	11.6	9.5	9.3	7.3	9.4

NOTES: (1) Without Inventory Change

Source: Federation des Enterprises de Metaux Non Ferreux

BRAZIL

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	930.6	887.9	873.5	843.5	757.3	549.4	455.0	400.7	299.0	256.4	260.6
3.	+ Imports of Ingot	2.6	2.5	0.1	2.3	1.4	2.6	4.6	3.0	10.8	28.3	46.7
4.	+ Imports of Mill Products	13.5	9.3	7.3	6.3	2.2	3.8	5.0	2.8	3.9	8.7	22.3
5.	+ Recovery of Secondary	65.0	66.6	66.8	65.9	60.6	52.7	47.2	45.0	37.8	37.3	46.1
6.	- Exports of Ingot	592.0	472.1	514.9	430.9	323.5	179.1	148.0	116.3	6.7	2.2	-
7.	- Exports of Mill Products	47.5	54.5 r	41.6	26.0	33.5	36.0	57.3	53.3	11.7	18.6	11.5
8.	= Apparent Aluminum Consumption	372.2	439.7 r	391.2	461.1	464.5	393.4	306.5	281.9	333.1	309.9	364.2
11.	+ Inventory Change	46.5	47.1	8.6	50.1	36.0	37.6	20.1	-7.9	21.2	20.8	10.9
12.	= Aluminum Consumption	325.7	392.6	382.6	411.0	428.5	355.8	286.4	289.8	311.9	289.1	353.3
13.	Mid-Year Population (Millions)	155.6	147.6	144.4	141.4	138.4	135.6	132.6	129.6	126.8	124.0	119.1
14.	= Per Capita Consumption (kg) (1)	2.4	3.0	2.7	3.3	3.4	2.9	2.3	2.2	2.6	2.5	3.1
15.	= Per Capita Consumption (kg) (2)	2.1	2.7	2.6	2.9	3.1	2.6	2.2	2.2	2.5	2.3	3.0

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change
r — revised

Source: Associacao Brasileira do Aluminio

Per Capita Aluminum Consumption—Continued

CAMEROON

Thousands of Metric Tons

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	87.5	87.3	80.0	71.5	81.1	81.6	73.1	77.4	78.9	65.4	43.0
3.	+ Imports of Ingot	-	-	-	-	-	-	-	-	-	-	-
4.	+ Imports of Mill Products	-	-	-	-	-	0.1	-	-	0.9	0.9	0.9
6.	- Exports of Ingot	67.7	62.4	63.1	47.4	53.0	51.9	49.4	51.1	55.4	44.5	13.3
7.	- Exports of Mill Products	5.3	7.1	6.0	5.8	6.8	8.9	6.7	9.8	10.7	7.0	5.1
8.	= Apparent Aluminum Consumption	14.5	17.8	10.9	18.3	21.3	20.9	17.0	16.5	13.7	14.8	25.5
11.	+ Inventory Change	-0.3	0.8	-1.8	-0.5	0.3	0.2	-1.1	8.6	-0.5	1.6	1.8
12.	= Aluminum Consumption	14.8	17.0	12.7	18.8	21.0	20.7	18.1	7.9	14.2	13.2	23.7
13.	Mid-Year Population (Millions)	11.8	10.9	10.9	10.9	10.2	9.6	9.2	8.9	8.7	8.5	8.3
14.	= Per Capita Consumption (kg) (1)	1.2	1.6	1.0	1.7	2.1	2.2	1.9	1.9	1.6	1.7	3.1
15.	= Per Capita Consumption (kg) (2)	1.3	1.6	1.2	1.7	2.1	2.2	2.0	0.9	1.6	1.6	2.9

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Aluminium Pechiney

CANADA

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	1,567.0	1,557.0	1,535.0	1,547.0	1,355.0	1,282.0	1,223.0	1,094.0	1,070.0	1,118.1	1,074.0
3.	+ Imports of Ingot	85.0	65.0	59.0	53.0	65.0	60.0	39.0	31.0	24.0	14.3	9.9
4.	+ Imports of Mill Products	327.0	342.0	311.0	214.0	179.0	174.0	188.0	122.0	110.0	125.1	118.1
5.	+ Recovery of Secondary	84.0	90.0	86.0	80.0	78.0	74.0	70.0	56.0	50.0	65.0	65.1
6.	- Exports of Ingot	1,282.0	1,159.0	1,155.0	1,172.0	1,164.0	1,051.0	834.0	925.0	896.0	725.5	784.7
7.	- Exports of Mill Products	194.0	157.0	143.0	155.0	82.0	78.0	100.0	65.0	42.0	40.5	39.6
8.	= Apparent Aluminum Consumption	587.0	738.0	693.0	567.0	431.0	461.0	586.0	313.0	316.0	556.5	442.8
11.	+ Inventory Change	-17.0	9.0	2.0	-1.0	-57.0	-54.0	92.0	-48.0	-99.0	160.0	57.9
12.	= Aluminum Consumption	604.0	729.0	691.0	568.0	488.0	515.0	494.0	361.0	415.0	396.5	384.9
13.	Mid-Year Population (Millions)	26.6	26.2 r	25.8	25.7	25.4	25.2	25.0	24.8	24.6	24.2	23.9
14.	= Per Capita Consumption (kg) (1)	22.1	28.2 r	26.9	22.1	17.0	18.3	23.4	12.6	12.8	23.0	18.5
15.	= Per Capita Consumption (kg) (2)	22.7	27.8 r	26.8	22.1	19.2	20.4	19.8	14.6	16.9	16.4	16.1

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change
r — revised

Source: Aluminum Company of Canada, Ltd.

DENMARK

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
3.	+ Imports of Ingot	36.3	na	39.2	35.0	39.6	37.6	34.1	28.0	25.1	21.2	24.2
4.	+ Imports of Mill Products	75.7	na	79.3	61.3	56.4	53.1	55.0	62.5	43.9	40.5	45.4
5.	+ Recovery of Secondary	-	na	-	-	-	-	-	28.0	32.3	30.3	24.9
6.	- Exports of Ingot	38.5	na	37.6	37.8	30.8	28.8	25.5	24.0	20.1	20.1	18.9
7.	- Exports of Mill Products	24.0	na	27.8	14.8	16.4	16.9	17.0	24.5	10.4	8.4	11.4
8.	= Apparent Aluminum Consumption	49.5	na	53.1	43.7	48.8	45.0	46.6	70.0	70.8	63.5	64.2
13.	Mid-Year Population (Millions)	5.11	na	5.11	5.11	5.11	5.11	5.11	5.11	5.12	5.12	5.12
14.	= Per Capita Consumption (kg) (1)	9.7	na	10.4	8.6	9.5	8.8	9.1	13.7	13.8	12.4	12.5

NOTES: (1) Without Inventory Change
na—Not available

Source: Danmarks Statistik

Detail may not add to totals due to rounding.

FINLAND

Thousands of Metric Tons

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
3.	+ Imports of Ingot	27.9	23.7	23.6	23.5	21.6	20.3	20.7	26.3	27.2	28.8	26.7
4.	+ Imports of Mill Products	36.8	39.0	36.4	28.8	25.0	23.1	24.5	24.0	22.4	21.9	28.8
5.	+ Recovery of Secondary	-	28.0 r	29.4 r	27.8	21.7	22.1	18.7	5.4	6.8	6.5	6.6
6.	- Exports of Ingot	23.4	24.0	25.3	24.3	17.0	16.2	13.6	10.7	6.3	4.6	3.9
7.	- Exports of Mill Products	11.7	12.6	12.3	9.3	7.5	17.5	21.5	19.7	18.1	22.0	27.1
8.	= Apparent Aluminum Consumption	29.6	54.1 r	51.8 r	46.5	43.8	31.8	28.8	25.3	32.0	30.6	31.1
13.	Mid-Year Population (Millions)	4.99	4.96	4.95	4.93	4.92	4.90	4.88	4.86	4.83	4.80	4.78
14.	= Per Capita Consumption (kg) (1)	5.9	10.9 r	10.5	9.4	8.9	6.5	5.9	5.2	6.6	6.4	6.5

NOTES: (1) Without Inventory Change
r — revised

Source: Central Statistical Office of Finland

FRANCE

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	325.9	334.9	327.7	322.5	321.8	293.2	341.5	360.9	390.4	435.6	431.9
3.	+ Imports of Ingot	541.0	484.2	461.8	407.1	428.1	396.1	365.0	394.6	352.0	300.4	332.4
4.	+ Imports of Mill Products	394.6	351.6 r	334.3 r	286.6 r	269.6 r	226.0 r	219.4 r	223.9	207.7	193.6	221.6
5.	+ Recovery of Secondary	280.7	282.4	271.7	236.6	215.3	201.1	205.6	212.0	197.9	211.3	205.1
6.	- Exports of Ingot	135.8	120.5	113.0	119.2	143.3	115.4	146.6	160.7	182.7	190.5	177.4
7.	- Exports of Mill Products	411.1	375.0 r	359.9 r	334.4 r	286.4 r	288.2 r	295.7 r	309.4	265.1	250.7	239.7
8.	= Apparent Aluminum Consumption	995.3	957.6 r	922.6 r	799.2 r	805.1 r	712.8 r	689.2 r	718.9	700.2	699.7	773.9
11.	= Inventory Change	11.0	-3.6	3.7	-13.1	15.4	0.8	6.2	5.0	-18.1	22.0	3.8
12.	= Aluminum Consumption	984.3	961.2 r	918.9 r	812.3 r	789.7 r	712.0 r	683.0 r	713.9	718.3	677.7	770.1
13.	Mid-Year Population (Millions)	56.6	56.2 r	55.9	55.6	55.4	54.2 r	55.0 r	54.7	54.5	54.2	53.9
14.	= Per Capita Consumption (kg) (1)	17.6	17.1 r	16.5 r	14.4 r	14.5 r	13.2 r	12.5 r	13.1	12.9	12.9	14.4
15.	= Per Capita Consumption (kg) (2)	17.4	17.1 r	16.4 r	14.6 r	14.3 r	13.1 r	12.4 r	13.0	13.2	12.5	14.3

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change
r — revised

Source: Aluminium Pechiney

GERMANY, FEDERAL REPUBLIC OF

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	715.4	742.0	744.1	737.7	763.7	745.4	777.2	743.3	722.8	728.9	730.7
3.	+ Imports of Ingot	900.7	943.2	806.7	734.0	784.0	721.6	722.7	592.1	565.3	500.0	608.8
4.	+ Imports of Mill Products	500.0	487.2 r	424.6	379.9	327.7	322.7	304.7	299.0	262.3	240.1	284.1
5.	+ Recovery of Secondary	712.5	687.6	678.2	610.3	590.3	567.1	480.8	458.9	398.1	413.4	425.0
6.	- Exports of Ingot	319.4	326.0	323.8	333.6	301.7	281.7	294.3	321.1	255.4	253.0	223.7
7.	- Exports of Mill Products	700.0	684.7 r	676.1	589.2	563.4	560.7	558.3	512.9	449.7	406.9	387.9
8.	= Apparent Aluminum Consumption	1,809.2	1,849.3 r	1,653.7	1,539.1	1,600.6	1,514.4	1,432.8	1,259.3	1,243.3	1,222.6	1,437.0
9.	+ Beginning Inventory	251.7	212.5	230.5	294.9	254.9	253.5	302.7	221.3	269.3	240.1	325.9
10.	- Ending Inventory	227.8	251.7	212.5	230.5	294.9	254.9	253.5	302.7	221.3	269.3	240.1
11.	= Inventory Change	-23.9	39.2	-18.0	-64.4	40.0	1.4	-49.2	81.4	-48.0	29.2	-85.8
12.	= Aluminum Consumption	1,833.1	1,810.1 r	1,671.7	1,603.5	1,560.6	1,513.0	1,482.0	1,177.9	1,291.3	1,193.4	1,522.8
13.	Mid-Year Population (Millions)	63.2	62.0	61.4	61.1	61.1	61.0	61.2	61.4	61.3	61.7	61.3
14.	= Per Capita Consumption (kg) (1)	28.6	29.8 r	26.9	25.2	26.2	24.8	23.4	20.5	20.3	19.8	23.4
15.	= Per Capita Consumption (kg) (2)	29.0	29.2 r	27.2	26.2	25.5	24.8	24.2	19.2	21.1	19.3	24.8

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change
r — revised

Source: Gesamtverband der Duetschen Aluminiumindustrie

Per Capita Aluminum Consumption—Continued

GREECE

Thousands of Metric Tons

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	na	na	na	130.0	126.3	123.4	136.0	136.2	134.9	146.1	145.6
3.	+ Imports of Ingot	na	na	na	13.5	7.2	3.6	6.5	2.1	4.0	2.8	0.1
4.	+ Imports of Mill Products	na	na	na	10.7	7.8	4.7	5.5	5.3	4.1	4.4	3.9
6.	- Exports of Ingot	na	na	na	71.8	45.8	43.2	48.4	55.1	66.6	69.2	60.2
7.	- Exports of Mill Products	na	na	na	76.8	39.4	49.8	48.5	40.6	29.5	26.9	32.7
8.	= Apparent Aluminum Consumption	na	na	na	5.6	56.1	38.7	51.1	47.8	46.9	57.2	56.7
13.	Mid-Year Population (Millions)	na	na	na	10.0	9.9	9.9	9.9	9.9	9.8	9.7	9.6
14.	= Per Capita Consumption (kg) (1)	na	na	na	0.6	5.7	3.9	5.2	4.9	4.8	5.9	5.9

NOTES: (1) Without Inventory Change
na — Not available

Source: National Statistical Service of Greece

HUNGARY

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	75.1	75.2	74.7	73.5	73.9	73.8	74.2	74.0	74.2	74.2	73.5
3.	+ Imports of Ingot	210.3	205.5	211.4	199.7	205.6	na	na	na	na	na	191.1
4.	+ Imports of Mill Products	2.6	3.6	3.9	3.8	5.5	na	na	na	na	na	7.7
5.	+ Recovery of Secondary	34.1	31.0	27.0	26.8	27.3	23.3	31.9	28.5	25.7	25.2	22.7
6.	- Exports of Ingot	134.9	84.5	68.4	72.2	64.4	na	na	na	na	na	90.3
7.	- Exports of Mill Products	56.3	67.6	66.6	57.2	59.3	55.6	52.0	49.6	42.2	31.4	28.9
8.	= Apparent Aluminum Consumption	130.9	163.2	182.0	174.4	188.6	168.0	163.9	160.0	159.0	161.0	175.8
9.	+ Beginning Inventory	41.0	40.0	33.4	38.6	26.3	na	na	na	na	na	na
10.	- Ending Inventory	24.1	41.0	44.0	33.4	38.6	na	na	na	na	na	na
11.	= Inventory Change	-16.9	1.0	10.6	-5.2	12.3	na	na	na	na	na	18.6
12.	= Aluminum Consumption	147.8	162.2	171.4	179.6	176.3	168.0	163.9	160.0	159.0	161.0	157.2
13.	Mid-Year Population (Millions)	10.6	10.6	10.6	10.6	10.6	10.6	10.7	10.7	10.7	10.7	10.7
14.	= Per Capita Consumption (kg) (1)	12.4	15.4	17.2	16.4	17.8	15.8	15.4	15.0	14.9	15.0	16.4
15.	= Per Capita Consumption (kg) (2)	14.0	15.3	16.2	16.9	16.6	15.8	15.4	15.0	14.9	15.0	14.7

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change
na — Not available

Source: Hungarian Aluminum Ltd.

ICELAND

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	86.8	88.5	82.0	83.5	78.2	75.4	80.4	76.1	75.2	73.7	73.1
4.	+ Imports of Mill Products	2.3	2.6	2.9	2.6	2.0	1.9	2.1	3.0	2.5	2.9	2.3
6.	- Exports of Ingot	86.3	90.1	81.4	89.2	76.3	72.1	79.9	106.9	61.5	64.1	67.4
8.	= Apparent Aluminum Consumption	2.8	1.0	3.5	-3.1	3.9	5.2	2.6	-27.8	16.2	12.5	8.0
9.	+ Beginning Inventory	2.0	3.6	3.0	8.7	6.8	3.5	3.0	33.8	20.1	10.5	4.8
10.	- Ending Inventory	2.3	2.0	3.6	3.0	8.7	6.8	3.5	3.0	33.8	20.1	10.5
11.	= Inventory Change	0.3	-1.6	0.6	-5.7	1.9	3.3	0.5	-30.8	13.7	9.6	5.7
12.	= Aluminum Consumption	2.5	2.6	2.9	2.6	2.0	1.9	2.1	3.0	2.5	2.9	2.3
13.	Mid-Year Population (Millions)	0.26	0.25	0.25	0.25	0.24	0.24	0.24	0.24	0.24	0.23	0.23
14.	= Per Capita Consumption (kg) (1)	10.9	4.0	13.9	-12.6	16.0	21.5	10.8	-116.8	68.9	54.6	35.1
15.	= Per Capita Consumption (kg) (2)	9.8	10.3	11.5	10.5	8.2	7.9	8.7	12.6	10.6	12.7	10.1

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Icelandic Aluminium Co. Ltd

Detail may not add to totals due to rounding.

INDIA

Thousands of Metric Tons

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	448.0	427.2	357.4	265.3	257.1	266.2	268.5	203.8	215.1	212.8	184.9
4.	+ Imports	30.0	30.0	7.3	78.1	64.2	31.1	66.0	15.6	8.6	30.9	103.1
7.	- Exports	35.0	27.4	14.9	-	-	-	-	-	-	-	-
8.	= Apparent Aluminum Consumption	443.0	429.8	349.8	343.5	321.3	297.3	334.5	219.4	223.7	243.7	288.0
13.	Mid-Year Population (Millions)	827.1	811.8	796.6	781.4	766.1	750.9	735.6	720.4	705.2	690.1	675.2
14.	= Per Capita Consumption (kg) (1)	0.54	0.53	0.44	0.44	0.42	0.40	0.45	0.30	0.32	0.35	0.43

NOTES: (1) Without Inventory Change

Source: Aluminum Association of India

IRISH REPUBLIC

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	*	*	*	*	-	-	-	-	-	-	-
4.	+ Imports	60.4	49.6	49.8	50.2	49.0	42.3	42.4	36.2	30.8	28.6	31.2
7.	- Exports	38.9	31.4	34.2	31.5	31.3	26.2	24.2	23.0	16.9	14.5	16.3
8.	= Apparent Aluminum Consumption	21.5	18.2	15.6	18.7	17.7	16.1	18.2	13.2	13.9	14.1	14.9
13.	Mid-Year Population (Millions)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.4	3.4
14.	= Per Capita Consumption (kg) (1)	6.1	5.2	4.4	5.3	5.0	4.5	5.2	3.8	4.0	4.1	4.4

NOTES: (1) Without Inventory Change
** — Less than 50 metric tons*

Source: Central Statistics Office, Dublin

ITALY

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	231.9	219.5	226.3	232.6	242.6	224.1	230.2	195.7	232.9	273.8	271.2
3.	+ Imports of Ingot	538.6	461.0	417.9	376.9	347.7	319.9	291.8	254.5	211.2	208.8	294.8
4.	+ Imports of Mill Products	218.4	186.4	177.8	155.6	125.2	109.7	106.1	110.3	83.3	81.6	111.6
5.	+ Recovery of Secondary	390.0	390.0	377.8	335.0	301.0	282.0	283.0	333.0	283.0	287.0	298.0
6.	- Exports of Ingot	28.3	29.8	38.4	51.6	34.3	43.8	32.2	41.3	54.1	49.8	11.8
7.	- Exports of Mill Products	173.4	139.5	118.2	108.2	105.9	103.0	94.0	112.2	100.9	93.8	86.4
8.	= Apparent Aluminum Consumption	1,177.2	1,087.6	1,043.2	940.3	876.3	788.9	784.9	740.0	655.4	707.6	877.4
11.	= Inventory Change	-	6.7	8.6	-3.1	40.0	9.2	19.8	-13.1	-38.0	4.8	57.3
12.	= Aluminum Consumption	1,177.2	1,080.9	1,034.6	943.4	836.3	779.7	765.1	753.1	693.4	702.8	820.1
13.	Mid-Year Population (Millions)	57.7	57.7	57.5	57.3	57.2	57.1	57.0	56.8	56.3	56.1	55.9
14.	= Per Capita Consumption (kg) (1)	20.4	18.9	18.1	16.4	15.3	13.8	13.8	13.0	11.6	12.6	15.7
15.	= Per Capita Consumption (kg) (2)	20.4	18.7	18.0	16.5	14.6	13.7	13.4	13.3	12.3	12.5	14.7

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Associazione Nazionale Industrie Metalli Non Ferrosi

Per Capita Aluminum Consumption—Continued

JAPAN

Thousands of Metric Tons

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	50.5	50.7	49.0	52.8	148.4	231.3	291.1	258.6	355.1	776.8	1,095.7
2.	± Gov't Stockpile Adj.	-	-	-	-	6.2	108.8	22.0	-63.5	-60.2	-22.0	-
3.	+ Imports of Ingot	2,653.1	2,363.2	2,292.0	1,835.3	1,366.0	1,575.5	1,347.8	1,603.7	1,446.6	1,129.3	910.1
4.	+ Imports of Mill Products	65.3	75.7	84.9	52.5	33.1	32.6	39.0	33.6	27.6	30.0	44.9
5.	+ Recovery of Secondary	1,242.4	1,230.9	1,220.4	962.9	838.7	803.4	692.8	700.0	560.5	550.1	563.0
6.	- Exports of Ingot	4.8	2.9	3.4	1.9	2.0	2.2	2.3	1.7	6.7	12.2	7.6
7.	- Exports of Mill Products	193.4	136.6	134.5	212.7	224.6	243.9	227.4	197.0	154.9	113.9	73.0
8.	= Apparent Aluminum Consumption	3,813.1	3,581.0	3,508.4	2,688.9	2,165.8	2,505.5	2,163.0	2,333.7	2,168.0	2,338.1	2,533.1
9.	+ Beginning Inventory	521.2	580.1	515.3	479.2	775.3	872.8	964.2	1,037.6	1,077.0	760.7	505.8
10.	- Ending Inventory	515.0	521.2	580.1	515.3	479.2	775.3	872.8	964.2	1,037.6	1,077.0	760.7
11.	= Inventory Change	-6.2	-58.9	64.8	36.1	-296.1	-97.5	-91.4	-73.4	-39.4	316.3	254.9
12.	= Aluminum Consumption	3,819.3	3,639.9	3,443.6	2,652.8	2,461.9	2,603.0	2,254.4	2,407.1	2,207.4	2,021.8	2,278.2
13.	Mid-Year Population (Millions)	123.6	123.3	122.8	122.3	121.7	121.0	120.3	119.5	118.8	117.9	117.1
14.	= Per Capita Consumption (kg) (1)	30.8	29.1	28.6	22.0	17.8	20.7	18.0	19.5	18.2	19.8	21.6
15.	= Per Capita Consumption (kg) (2)	30.9	29.5	28.0	21.7	20.2	21.5	18.7	20.1	18.6	17.1	19.5

NOTES: *(1) Without Inventory Change*
(2) Adjusted for Inventory Change

Source: *Japan Aluminium Federation*

KOREA, REPUBLIC OF

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	na	na	na	na	na	17.1	17.1	12.6	14.8	17.2	17.6
3.	+ Imports of Ingot	na	na	na	na	na	160.4	143.2	134.3	105.0	98.6	63.6
4.	+ Imports of Mill Products	na	na	na	na	na	30.9	34.6	31.7	24.0	17.0	20.0
5.	+ Recovery of Secondary	na	na	na	na	na	10.3	9.8	10.7	13.3	11.5	7.8
6.	- Exports of Ingot	na	na	na	na	na	0.7	0.2	0.2	-	-	1.5
7.	- Exports of Mill Products	na	na	na	na	na	33.5	21.3	20.9	24.0	25.7	35.0
8.	= Apparent Aluminum Consumption	na	na	na	na	na	184.5	183.2	168.2	133.1	118.6	72.5
13.	Mid-Year Population (Millions)	na	na	na	na	na	41.1	40.6	40.0	39.3	38.7	38.2
14.	= Per Capita Consumption (kg) (1)	na	na	na	na	na	4.5	4.5	4.2	3.4	3.1	1.9

NOTES: *(1) Without Inventory Change*
na — Not available

Source: *Ministry of Commerce and Industry*

MEXICO

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	67.5	71.7	68.3	60.2	37.0	42.7	44.0	36.7	41.2	43.2	42.6
3.	+ Imports of Ingot	29.2	16.6	21.7	19.9	35.2	78.7	45.2	17.5	32.3	58.8	63.5
4.	+ Imports of Mill Products	76.8	47.5	29.8	35.2	20.6	25.7	15.3	6.2	62.2	82.9	49.4
5.	+ Recovery of Secondary	56.8	13.2	4.5	8.8	16.4	27.6 r	19.6	15.1	25.8	20.3	17.1
6.	- Exports of Ingot	16.1	8.6	16.1	9.8	8.0	5.0	1.9	0.9	0.2	*	*
7.	- Exports of Mill Products	8.1	12.0	13.9	11.5	4.1	12.1	6.2	1.3	1.1	3.1	3.4
8.	= Apparent Aluminum Consumption	206.1	128.3	94.2	102.8	97.2	157.6 r	116.0	76.4	160.2	202.1	169.3
9.	+ Beginning Inventory	5.8	3.0	4.6	6.7	8.2	6.0	7.5	13.4	4.5	2.0	1.5
10.	- Ending Inventory	3.4	5.8	3.0	4.6	6.7	8.2	6.0	7.5	13.4	4.5	2.0
11.	= Inventory Change	-2.3	2.8	-1.6	-2.1	-1.5	2.2	-1.5	-5.9	8.9	2.5	0.5
12.	= Aluminum Consumption	208.5	125.4	95.9	104.9	98.7	155.4 r	117.5	82.3	151.3	199.6	168.8
13.	Mid-Year Population (Millions)	81.0	84.0	83.0	81.0	78.0	75.0	73.0	72.0	70.0	68.0	67.0
14.	= Per Capita Consumption (kg) (1)	2.5	1.5	1.1	1.3	1.2	2.1	1.6	1.1	2.3	3.0	2.5
15.	= Per Capita Consumption (kg) (2)	2.6	1.5	1.2	1.3	1.3	2.1	1.6	1.1	2.2	2.9	2.5

NOTES: *(1) Without Inventory Change*
(2) Adjusted for Inventory Change
** — Less than 50 metric tons*

Source: *Instituto Mexicano del Aluminio, A.C.*

NETHERLANDS

Thousands of Metric Tons

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	257.9	279.2	270.7	268.7	265.8	250.6	249.2	235.4	250.9	262.1	258.2
3.	+ Imports of Ingot	189.2	177.3	167.7	145.5	151.1	133.4	133.0	129.0	195.5	161.3	215.8
4.	+ Imports of Mill Products	191.6	169.6	171.8	149.7	134.5	126.0	120.5	272.6	107.9	92.4	113.3
5.	+ Recovery of Secondary	134.2	129.7	115.9	101.4	96.8	83.3	59.9	58.2	49.8	50.2	53.4
6.	- Exports of Ingot	362.4	345.4	329.8	314.4	301.3	296.8	279.0	277.3	350.8	352.0	365.3
7.	- Exports of Mill Products	170.0	151.9	139.2	134.1	131.1	99.5	107.3	262.8	89.7	86.5	98.7
8.	= Apparent Aluminum Consumption	240.5	258.5	257.1	216.8	215.8	197.0	176.3	155.1	163.6	127.6	176.7
9.	+ Beginning Inventory	9.5	10.3	10.7	8.2	9.9	6.8	11.5	9.6	8.7	10.3	7.7
10.	- Ending Inventory	11.0	9.5	10.3	10.7	8.2	9.9	6.8	11.5	9.6	8.7	10.3
11.	= Inventory Change	1.5	-0.8	-0.4	2.5	-1.7	3.1	-4.7	1.9	0.9	-1.6	2.6
12.	= Aluminum Consumption	239.0	259.3	257.5	214.3	217.5	193.9	181.0	153.2	162.7	129.2	174.1
13.	Mid-Year Population (Millions)	14.9	14.8	14.7	14.6	14.5	14.5	14.4	14.4	14.3	14.2	14.1
14.	= Per Capita Consumption (kg) (1)	16.1	17.5	17.5	14.8	14.9	13.6	12.2	10.8	11.4	9.0	12.5
15.	= Per Capita Consumption (kg) (2)	16.0	17.5	17.5	14.7	15.0	13.4	12.6	10.6	11.4	9.1	12.3

NOTES: *(1) Without Inventory Change*
(2) Adjusted for Inventory Change

Source: *Vereniging Nederlands Aluminium Instituut*

NEW ZEALAND

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	259.7	257.5	255.6	249.0	236.2	241.6	241.6	220.1	163.1	154.3	154.5
3.	+ Imports of Ingot	7.8	4.5	9.2	5.4	0.1	0.5	1.4	6.6	7.2	3.4	-
4.	+ Imports of Mill Products	11.7	10.8	7.2	6.0	5.0	3.7	3.6	2.9	3.1	2.6	2.4
5.	+ Recovery of Secondary	4.8	4.5	3.1	4.0	4.0	4.0	3.7	3.0	2.7	3.0	2.0
6.	- Exports of Ingot	235.5	232.1	232.2	219.0	209.1	224.6	212.8	210.4	140.2	124.8	126.2
7.	- Exports of Mill Products	9.2	9.1	7.8	4.6	5.4	9.5	6.2	5.4	7.7	5.7	5.4
8.	= Apparent Aluminum Consumption	39.3	36.1	35.1	40.8	30.8	15.7	31.3	16.8	28.2	32.8	27.3
9.	+ Beginning Inventory	14.5	15.4	14.3	12.6	15.2	32.5	31.8	41.6	35.6	31.9	28.6
10.	- Ending Inventory	19.5	14.5	15.4	14.3	12.6	15.2	32.5	31.8	41.6	35.6	31.9
11.	= Inventory Change	5.0	-0.9	1.1	1.7	-2.6	-17.3	0.7	-9.8	6.0	3.7	3.3
12.	= Aluminum Consumption	34.3	37.0	34.0	39.1	33.4	33.0	30.6	26.6	22.2	29.1	24.0
13.	Mid-Year Population (Millions)	3.3	3.3	3.3	3.3	3.3	3.3	3.2	3.2	3.2	3.1	3.1
14.	= Per Capita Consumption (kg) (1)	11.7	10.9	10.7	12.4	9.4	4.8	9.7	5.3	8.9	10.5	8.8
15.	= Per Capita Consumption (kg) (2)	10.2	11.2	10.3	11.9	10.2	10.1	9.5	8.3	7.0	9.3	7.7

NOTES: *(1) Without Inventory Change*
(2) Adjusted for Inventory Change

Source: *Comalco Limited and New Zealand Department of Statistics*

Per Capita Aluminum Consumption—Continued

NORWAY

Thousands of Metric Tons

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	871.1	859.0	826.6	797.8	729.1	724.1	760.8	715.4	645.1	636.1	662.0
3.	+ Imports of Ingot	80.9	102.1	90.7	57.1	35.1	34.7	31.6	11.2	21.0	14.8	16.4
4.	+ Imports of Mill Products	27.5	29.5	30.6	33.1	51.9	46.0	51.8	42.4	37.2	38.5	42.5
5.	+ Recovery of Secondary	7.2	7.2	7.2	-	-	-	2.3	0.7	2.8	2.8	3.5
6.	- Exports of Ingot	777.3	770.4	755.0	754.2	646.5	643.8	638.7	637.4	545.4	524.0	521.2
7.	- Exports of Mill Products	148.3	118.3	113.1	102.7	89.3	91.7	91.8	105.1	76.8	74.9	71.6
8.	= Apparent Aluminum Consumption	61.0	109.0	87.0	31.1	80.3	69.3	116.0	27.2	83.9	93.3	131.6
11.	+ Inventory Change	-	-	-	-28.5	4.7	-14.3	26.8	-27.4	-28.4	15.8	38.7
12.	= Aluminum Consumption	61.0	109.0	87.0	59.6	75.6	83.6	89.2	54.6	112.3	77.5	92.9
13.	Mid-Year Population (Millions)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
14.	= Per Capita Consumption (kg) (1)	14.9	26.6	21.2	7.6	19.6	16.9	28.3	6.6	20.5	22.8	32.1
15.	= Per Capita Consumption (kg) (2)	14.9	26.6	21.2	14.5	18.4	20.4	21.8	13.3	27.4	18.9	22.7

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Skan Aluminium

PANAMA

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
3.	+ Imports of Ingot	0.8	0.5	0.6	1.8	1.6	1.4	1.2	1.2	1.2	1.6	1.6
4.	+ Imports of Mill Products	3.2	3.0	2.4	2.2	0.4	0.4	3.6	1.6	0.1	0.2	0.1
5.	+ Recovery of Secondary	2.8	2.4	1.2	1.3	0.7	0.7	0.6	0.6	0.6	0.5	0.4
6.	- Exports of Ingot	0.8	0.5	0.6	0.9	0.5	0.4	0.3	0.2	-	-	-
7.	- Exports of Mill Products	0.4	0.5	0.5	0.6	0.5	0.5	0.4	0.2	0.3	0.2	0.3
8.	= Apparent Aluminum Consumption	5.7	4.9	3.1	3.9	1.8	1.7	4.7	3.0	1.6	2.1	1.8
13.	Mid-Year Population (Millions)	2.40	2.35	2.30	2.30	2.27	2.20	2.14	2.10	2.00	1.98	1.95
14.	= Per Capita Consumption (kg) (1)	2.4	2.1	1.3	1.7	0.8	0.8	2.2	1.4	0.8	1.1	0.9

NOTES: (1) Without Inventory Change

Source: Aluminio de Panama, S.A.

PHILIPPINES, REPUBLIC OF

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
3.	+ Imports of Ingot	na	na	na	5.3	4.4	2.5	2.7	8.5	9.5	10.4	17.6
4.	+ Imports of Mill Products	na	na	na	7.9	3.6	4.7	6.7	9.4	16.9	4.4	5.5
6.	- Exports of Ingot	na	na	na	-	-	-	-	-	-	*	*
7.	- Exports of Mill Products	na	na	na	*	*	*	0.3	2.9	4.3	4.7	5.6
8.	= Apparent Aluminum Consumption	na	na	na	13.2	8.0	7.2	9.1	15.0	22.1	10.1	17.5
13.	Mid-Year Population (Millions)	na	na	na	57.4	56.0	54.7	53.4	52.1	50.8	49.5	48.3
14.	= Per Capita Consumption (kg) (1)	na	na	na	0.2	0.1	0.1	0.2	0.3	0.4	0.2	0.4

NOTES: (1) Without Inventory Change
** — Less than 50 metric tons*
na — Not available

Source: National Census and Statistics Office

Detail may not add to totals due to rounding.

PORTUGAL

Thousands of Metric Tons

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
3.	+ Imports of Ingot	49.5	47.1	45.1 r	44.0 r	39.9 r	34.1 r	26.1	43.0	46.2	40.1	27.5
4.	+ Imports of Mill Products	22.3	20.7 r	17.0 r	17.2 r	14.3 r	12.9 r	13.2	15.3	17.9	18.2	16.6
5.	+ Recovery of Secondary	2.0	2.0 r	2.0 r	2.0 r	3.2	2.2	2.4	2.4	1.9	2.0	2.7
6.	- Exports of Ingot	2.2	1.2 r	1.5 r	2.1 r	-	2.0	0.8	0.3	0.3	0.3	0.3
7.	- Exports of Mill Products	8.2	7.9 r	8.0 r	5.2 r	5.0 r	3.8 r	9.3	14.9	16.1	10.6	8.6
8.	= Apparent Aluminum Consumption	63.4	60.7 r	54.6 r	55.9 r	52.4 r	43.4 r	31.6	45.5	49.6	49.4	37.9
13.	Mid-Year Population (Millions)	10.2	10.2	10.2	10.2	10.2	10.2	10.1	10.0	9.9	9.9	9.8
14.	= Per Capita Consumption (kg) (1)	6.2	6.0 r	5.4 r	5.5 r	5.1 r	4.3 r	3.1	4.6	5.0	5.0	3.9

NOTES: *(1) Without Inventory Change*
r — revised

Source: *National Statistical Institute*

EL SALVADOR

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
3.	+ Imports of Ingot	2.2	1.4	1.8	1.3	1.7	0.5	1.2	1.1	0.9	1.3	1.6
4.	+ Imports of Mill Products	0.8	1.0	0.7	0.7	-	-	0.3	1.9	-	0.8	0.4
5.	+ Recovery of Secondary	-	0.1	0.1	0.6	0.1	0.5	0.5	0.5	0.6	0.6	0.7
7.	- Exports of Mill Products	1.5	0.8	1.0	1.0	0.9	0.8	1.1	1.0	0.4	1.3	1.9
8.	= Apparent Aluminum Consumption	1.6	1.7	1.5	1.6	0.9	0.2	0.9	2.5	1.2	1.5	0.8
13.	Mid-Year Population (Millions)	5.25	5.14	5.03	4.93	4.97	4.85	4.78	4.83	4.74	4.60	4.50
14.	= Per Capita Consumption (kg) (1)	0.3	0.3	0.3	0.3	0.2	0.0	0.2	0.5	0.3	0.3	0.2

NOTES: *(1) Without Inventory Change*

Source: *Aluminio de Centro America, S.A.*

KINGDOM OF SAUDI ARABIA

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	na	na	-	-	-	-	-	-	*	*	-
3.	+ Imports of Ingot	na	na	47.0	36.6	9.1	9.5	8.7	14.6	5.2	80.3	73.4
4.	+ Imports of Mill Products	na	na	40.0	30.8	38.2	99.8	61.6	148.9	28.8	12.2	14.0
6.	- Exports of Ingot	na	na	-	-	-	-	-	-	-	3.8	1.7
7.	- Exports of Mill Products	na	na	-	-	-	-	-	-	0.5	*	0.2
8.	= Apparent Aluminum Consumption	na	na	103.0	87.4	47.3	109.2	70.3	163.5	33.4	88.6	85.5
13.	Mid-Year Population (Millions)	na	na	12.0	12.0	8.0	8.0	7.8	7.8	7.8	7.8	7.6
14.	= Per Capita Consumption (kg) (1)	na	na	8.5	7.3	5.9	13.7	9.0	21.0	4.3	11.4	11.2

NOTES: *(1) Without Inventory Change*
** — Less than 50 metric tons*
na — Not available

Source: *Saudi Basic Industries Corp*

SINGAPORE, REPUBLIC OF

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
3.	+ Imports of Ingot	46.0	39.0	126.0	41.0	16.0	14.0	11.0	18.0	11.0	8.0	9.0
4.	+ Imports of Mill Products	51.0	44.0	46.0	40.0	29.0	32.0	33.0	35.0	28.0	27.0	21.0
6.	- Exports of Ingot	22.0	66.0	107.0	13.0	6.0	8.0	7.0	13.0	6.0	3.0	4.0
7.	- Exports of Mill Products	24.0	12.0	10.0	9.0	9.0	8.0	7.0	14.0	7.0	4.0	4.0
8.	= Apparent Aluminum Consumption	51.0	5.0	55.0	59.0	30.0	30.0	30.0	26.0	26.0	28.0	22.0
13.	Mid-Year Population (Millions)	2.69	2.69	2.65	2.61	2.59	2.56	2.53	2.50	2.50	2.40	2.40
14.	= Per Capita Consumption (kg) (1)	19.0	1.9	20.8	22.6	11.6	11.7	11.9	10.4	10.4	11.7	9.2

NOTES: *(1) Without Inventory Change*

Source: *Department of Statistics, Singapore*

Per Capita Aluminum Consumption—Continued

SOUTH AFRICA, REPUBLIC OF[3]

Thousands of Metric Tons

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	na	na	172.2	170.6	169.6	164.6	167.4	161.3	105.8	83.7	86.0
3.	+ Imports of Ingot	na	na	0.4	0.4	0.4	0.4	0.2	0.4	0.7	1.8	0.3
4.	+ Imports of Mill Products	na	na	17.0	17.0	17.0	16.5	11.8	14.8	10.8	12.0	11.1
5.	+ Recovery of Secondary	na	na	27.0	27.0	27.0	25.0	28.2	31.7	27.2	28.3	27.2
6.	- Exports of Ingot	na	na	68.3	93.8	92.4	90.5	82.7	110.5	24.6	2.9	12.9
7.	- Exports of Mill Products	na	na	3.0	3.0	3.0	2.5	2.2	0.7	0.9	1.1	3.3
8.	= Apparent Aluminum Consumption	na	na	145.3	118.2	118.6	113.5	122.7	97.0	119.0	121.8	108.4
11.	+ Inventory Change	na	na	-	-	2.2	-2.5	8.0	-11.6	12.3	3.7	0.4
12.	= Aluminum Consumption	na	na	145.3	118.2	116.4	116.0	114.7	108.6	106.7	118.1	108.0
13.	Mid-Year Population (Millions)	na	na	28.0	28.0	28.0	27.4	26.8	26.1	26.2	25.6	24.1
14.	= Per Capita Consumption (kg) (1)	na	na	5.2	4.2	4.2	4.1	4.6	3.7	4.5	4.8	4.5
15.	= Per Capita Consumption (kg) (2)	na	na	5.2	4.2	4.2	4.2	4.3	4.2	4.1	4.6	4.5

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change
(3) 1980-1983 Population excludes independent homelands — Transkei, Bophutatswanda and Venda
1984-pres. Population excludes independent homelands — Transkei, Bophutatswanda, Venda and Ciskei

Source: Aluminium Federation of South Africa and World Bureau of Metal Statistics

SPAIN

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	355.0	352.0	294.0	341.0	354.7	370.1	380.8	355.5	365.1	396.6	386.5
3.	+ Imports of Ingot	24.0	11.0	45.0	9.0	19.2	9.7	10.6	12.3	18.3	13.6	3.2
4.	+ Imports of Mill Products	69.0	56.0	59.0	47.2	40.0	20.6	26.0	41.6	31.0	21.3	24.0
6.	- Exports of Ingot	93.0	95.0	75.0	99.3	142.2	202.7	232.2	165.9	145.2	162.7	106.8
7.	- Exports of Mill Products	62.0	52.0	56.0	47.0	43.3	41.8	40.5	35.3	36.9	39.0	45.4
8.	= Apparent Aluminum Consumption	293.0	272.0	267.0	250.9	228.4	155.9	144.7	208.2	232.3	229.8	261.5
11.	+ Inventory Change	-2.0	-5.0	-4.0	-9.0	8.3	-18.0	-25.0	4.0	23.5	33.5	21.0
12.	= Aluminum Consumption	295.0	277.0	271.0	259.9	220.1	173.9	169.7	204.2	208.8	196.3	240.5
13.	Mid-Year Population (Millions)	39.9	39.5	39.0	38.9	38.7	38.5	38.4	38.2	37.9	37.7	37.4
14.	= Per Capita Consumption (kg) (1)	7.3	6.9	6.8	6.4	5.9	4.0	3.8	5.5	6.1	6.1	7.0
15.	= Per Capita Consumption (kg) (2)	7.4	7.0	6.9	6.7	5.7	4.5	4.4	5.3	5.5	5.2	6.4

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Aluminio de Galicia, S.A.

SWEDEN

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	96.3	97.0	99.2	81.5	77.1	83.7	82.9	82.2	78.9	82.8	81.6
3.	+ Imports of Ingot	46.7	56.1	58.8	43.1	54.3	46.3	48.5	49.7	45.5	38.7	36.9
4.	+ Imports of Mill Products	102.7	102.7	99.3	91.0	87.5	82.0	87.4	86.3	74.0	63.0	64.4
5.	+ Recovery of Secondary	49.3	53.3	50.7	48.8	41.9	39.4	37.0	29.0	27.2	26.7	24.5
6.	- Exports of Ingot	64.1	58.8	59.9	43.6	39.4	41.8	38.2	39.2	35.2	37.8	17.7
7.	- Exports of Mill Products	50.8	54.9	55.1	46.1	50.7	42.9	40.4	50.6	46.3	43.0	47.1
8.	= Apparent Aluminum Consumption	180.1	195.4	193.0	174.7	170.7	166.7	177.2	157.5	144.1	130.4	142.6
11.	+ Inventory Change	-1.8	3.8	0.3	-5.2	-1.1	-5.3	5.8	-2.0	-6.7	-0.7	12.9
12.	= Aluminum Consumption	181.9	191.6	192.7	179.9	171.8	172.0	171.4	159.5	150.8	131.1	129.7
13.	Mid-Year Population (Millions)	8.6	8.5	8.4	8.4	8.4	8.4	8.3	8.3	8.3	8.3	8.3
14.	= Per Capita Consumption (kg) (1)	23.0	23.0	22.7	20.8	20.4	20.0	21.4	18.9	17.3	15.7	17.1
15.	= Per Capita Consumption (kg) (2)	22.5	22.5	22.7	21.4	20.5	20.6	20.7	19.1	18.1	15.8	15.6

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change and Granges Aluminium

Source: National Central Bureau of Statistics
Detail may not add to totals due to rounding.

SWITZERLAND

Thousands of Metric Tons

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	71.7	71.4 r	71.8	73.4	80.6	72.6	79.2	76.0	75.3	82.5	86.3
3.	+ Imports of Ingot	104.6	117.6	94.8	87.0	86.7	77.2	62.8	57.2	47.4	36.1	52.8
4.	+ Imports of Mill Products	92.2	80.8 r	74.1	64.5	65.2	62.2	56.1	52.7	47.1	47.9	51.6
5.	+ Recovery of Secondary	34.4	31.7	28.2	25.5	25.5	26.1	23.0	21.1	18.7	20.6	19.4
6.	- Exports of Ingot	30.6	32.5	32.2	26.6	23.4	19.9	25.7	26.7	25.4	22.7	22.8
7.	- Exports of Mill Products	116.3	106.0 r	116.0	99.6	99.3	95.1	84.3	80.4	70.5	66.0	72.0
8.	= Apparent Aluminum Consumption	156.0	163.0 r	120.7	124.2	135.3	123.1	111.1	99.9	92.6	98.3	115.3
11.	+ Inventory Change	3.4	-	-4.4	0.2	2.7	0.1	-7.3	3.1	-4.2	-0.7	5.9
12.	= Aluminum Consumption	152.6	163.0 r	125.1	124.0	132.6	123.0	118.4	96.8	96.8	99.1	109.4
13.	Mid-Year Population (Millions)	6.8	6.7	6.6	6.6	6.5	6.5	6.5	6.5	6.5	6.4	6.4
14.	= Per Capita Consumption (kg) (1)	23.1	24.2 r	18.3	18.8	20.8	18.9	17.1	15.4	14.2	15.4	18.0
15.	= Per Capita Consumption (kg) (2)	22.6	24.2 r	19.0	18.8	20.4	18.9	18.2	14.9	14.9	15.5	17.1

NOTES: *(1) Without Inventory Change*
(2) Adjusted for Inventory Change
r— revised

Source: *Vereinigung Schweizerischer Aluminium — Halbzeugwerke*

TAIWAN, REPUBLIC OF CHINA

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	na	na	na	na	na	-	-	-	10.0	30.0	62.5
3.	+ Imports of Ingot	na	na	na	na	na	147.2	99.9	139.1	88.6	47.7	58.3
4.	+ Imports of Mill Products	na	na	na	na	na	32.4	22.8	23.2	15.0	9.7	9.6
5.	+ Recovery of Secondary	na	na	na	na	na	3.6	5.3	24.2	15.5	16.8	19.2
6.	- Exports of Ingot	na	na	na	na	na	5.8	3.1	2.6	0.6	-	*
7.	- Exports of Mill Products	na	na	na	na	na	29.6	17.3	18.4	14.0	19.2	17.2
8.	= Apparent Aluminum Consumption	na	na	na	na	na	147.8	107.6	165.5	114.5	85.0	132.5
11.	+ Inventory Change	na	na	na	na	na	-	-	-	0.9	-33.6	23.9
12.	= Aluminum Consumption	na	na	na	na	na	147.8	107.6	165.5	113.6	118.6	108.6
13.	Mid-Year Population (Millions)	na	na	na	na	na	19.0	18.8	18.6	18.3	18.0	17.8
14.	= Per Capita Consumption (kg) (1)	na	na	na	na	na	7.8	5.7	8.9	6.3	4.7	7.4
15.	= Per Capita Consumption (kg) (2)	na	na	na	na	na	7.8	5.7	8.9	6.2	6.6	6.1

NOTES: *(1) Without Inventory Change*
(2) Adjusted for Inventory Change
na — Not available

Source: *Taiwan Aluminium Corporation*

TURKEY, REPUBLIC OF

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	65.0	62.0	59.0 r	49.0 r	65.0 r	65.0 r	60.0 r	57.4	84.2	131.4	35.0
3.	+ Imports of Ingot	101.0	48.0	60.0 r	94.0	38.0	60.0	68.5	60.0	35.1	60.1	6.4
4.	+ Imports of Mill Products	4.0	5.0	6.0 r	8.0 r	3.0 r	3.0 r	3.1	5.7	8.6	10.8	21.6
6.	- Exports of Ingot	10.0	10.0	6.0 r	-	-	-	0.2	1.3	1.0	-	-
7.	- Exports of Mill Products	37.0	27.0	29.0 r	25.0 r	22.0 r	25.0 r	27.1	21.4	14.3	22.1	16.0
8.	= Apparent Aluminum Consumption	123.0	78.0	90.0 r	126.0 r	84.0 r	103.0 r	104.3	100.4	112.6	180.2	47.0
13.	Mid-Year Population (Millions)	49.2	49.2	49.2	49.3	49.3	49.3	48.3	47.3	46.3	45.3	44.4
14.	= Per Capita Consumption (kg) (1)	2.5	1.6	1.8 r	2.6 r	1.7 r	2.1 r	2.2	2.1	2.4	4.0	1.1

NOTES: *(1) Without Inventory Change*
r — revised

Source: *State Institute of Statistics*

Per Capita Aluminum Consumption—Continued

UNITED KINGDOM

Thousands of Metric Tons

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	289.8	297.3	300.2	294.4	275.9	275.4	287.9	252.5	240.8	339.2	374.5
3.	+ Imports of Ingot	252.9	256.0	243.4	175.1	180.6	145.8	170.2	162.4	154.8	123.3	169.4
4.	+ Imports of Mill Products	341.0	317.2	298.0	285.5	240.6	227.5	234.2	224.2	200.6	157.4	145.0
5.	+ Recovery of Secondary	114.3	103.9	99.6	110.8	110.1	121.9	137.1	122.6	108.4	140.7	150.0
6.	- Exports of Ingot	153.3	160.7	147.9	125.9	110.3	121.1	118.2	126.5	117.5	168.5	188.9
7.	- Exports of Mill Products	175.0	158.7	140.2	127.9	121.4	104.5	104.7	90.9	93.0	77.6	101.6
8.	= Apparent Aluminum Consumption	669.7	655.0	653.1	612.0	575.5	545.0	606.5	544.3	494.1	514.5	548.4
9.	+ Beginning Inventory	86.4	88.7	86.8	95.1	105.2	119.4	118.7	106.4	85.1	97.4	96.1
10.	- Ending Inventory	67.3	86.4	88.7	86.8	95.1	105.2	119.4	118.7	106.4	85.1	97.4
11.	= Inventory Change	-19.1	-2.3	1.9	-8.3	-10.1	-14.2	0.7	12.3	21.3	-12.3	1.4
12.	= Aluminum Consumption	688.8	657.3	651.2	620.3	585.6	559.2	605.8	532.0	472.8	526.8	547.0
13.	Mid-Year Population (Millions)	57.5	57.3	57.1	56.8	56.7	56.6	56.4	56.0	56.0	68.0	67.0
14.	= Per Capita Consumption (kg) (1)	11.6	11.4	11.4	10.8	10.1	9.6	10.8	9.7	8.8	7.6	8.2
15.	= Per Capita Consumption (kg) (2)	12.0	11.5	11.4	10.9	10.3	9.9	10.7	9.5	8.4	7.7	8.2

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change

Source: Aluminium Federation, Ltd. and British Alcan Ltd.

UNITED STATES OF AMERICA

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	4,048.3	4,030.2	3,944.5	3,346.9	3,038.7	3,499.7	4,099.1	3,353.3	3,273.7	4,488.7	4,653.6
3.	+ Imports of Ingot	962.1	925.6	1,027.3	1,245.5	1,348.8	868.7	882.0	742.7	616.3	644.7	526.8
4.	+ Imports of Mill Products	459.2	427.4	440.0	455.9	493.9	463.0	494.3	280.5	206.7	137.9	76.2
5.	+ Recovery of Secondary	2,393.0	2,054.0 r	2,122.0	1,986.0	1,773.0	1,762.0	1,760.0	1,773.0	1,665.6	1,789.9	1,576.7
6.	- Exports of Ingot	686.0	594.5	400.1	281.2	209.6	347.3	259.6	360.7	363.9	312.3	648.6
7.	- Exports of Mill Products	478.5	497.0	386.3	287.0	203.5	199.3	218.6	202.1	223.4	309.2	346.3
8.	= Apparent Aluminum Consumption	6,698.2	6,345.7 r	6,747.4	6,466.1	6,241.3	6,046.8	6,757.2	5,586.7	5,175.0	6,439.7	5,838.4
9.	+ Beginning Inventory	1,821.6	1,882.8	1,893.8	2,235.3	2,342.8	2,653.5	2,265.4	2,812.0	2,996.7	2,302.5	2,324.8
10.	- Ending Inventory	1,825.0	1,821.6	1,882.8	1,893.8	2,235.3	2,342.8	2,653.5	2,265.4	2,812.0	2,996.7	2,302.5
11.	= Inventory Change	3.5	-61.2	-11.0	-341.6	-107.5	-310.7	388.1	-546.6	-184.7	694.2	-22.3
12.	= Aluminum Consumption	6,694.7	6,406.9 r	6,758.4	6,807.7	6,348.8	6,357.5	6,369.1	6,133.3	5,359.7	5,745.5	5,860.7
13.	Mid-Year Population (Millions)	249.2	248.2	245.8	243.7	241.0	238.7	236.5	234.0	231.5	229.3	227.7
14.	= Per Capita Consumption (kg) (1)	26.9	25.6	27.5	26.5	25.9	25.3	28.6	23.9	22.4	28.1	25.6
15.	= Per Capita Consumption (kg) (2)	26.9	25.8	27.5	27.9	26.3	26.6	26.9	26.2	23.2	25.1	25.7

NOTES: (1) Without Inventory Change
(2) Adjusted for Inventory Change
r — revised

Source: The Aluminum Association, Inc.

Detail may not add to totals due to rounding.

VENEZUELA

Thousands of Metric Tons

		1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
1.	+ Primary Aluminum Production	na	na	na	na	421.0	404.0	387.0	338.0	273.6	315.5	321.3
3.	+ Imports of Ingot	na	na	na	na	6.0	3.0	0.4	0.3	0.9	0.4	0.2
4.	+ Imports of Mill Products	na	na	na	na	17.0	19.0	21.0	13.0	25.7	23.8	24.8
5.	+ Recovery of Secondary	na	na	na	na	24.0	21.0	14.0	20.0	10.0	10.0	10.0
6.	- Exports of Ingot	na	na	na	na	247.0	297.0	179.0	292.0	208.5	239.0	217.3
7.	- Exports of Mill Products	na	na	na	na	103.0	106.0	68.0	22.0	0.2	24.4	37.1
8.	= Apparent Aluminum Consumption	na	na	na	na	118.0	44.0	175.4	57.3	101.5	86.3	101.9
9.	+ Beginning Inventory	na	na	na	na	60.0	99.0	22.0	55.9	48.8	25.4	20.2
10.	- Ending Inventory	na	na	na	na	61.0	60.0	99.0	22.0	55.9	48.8	25.4
11.	= Inventory Change	na	na	na	na	1.0	-39.0	77.0	-33.9	7.1	23.4	5.2
12.	= Aluminum Consumption	na	na	na	na	117.0	83.0	98.4	91.2	94.4	62.9	96.7
13.	Mid-Year Population (Millions)	na	na	na	na	17.8	17.3	16.9	16.5	14.9	14.6	13.9
14.	= Per Capita Consumption (kg) 1	na	na	na	na	6.6	2.5	10.4	3.5	6.8	5.9	7.3
15.	= Per Capita Consumption (kg) 2	na	na	na	na	6.6	4.8	5.8	5.5	6.3	4.3	7.0

NOTES: *(1) Without Inventory Change*
(2) Adjusted for Inventory Change
na — Not available

Source: *Aluminio del Caroni, S.A.*

ACSR AND ALUMINUM CABLE, BARE —Aluminum stranded conductor reinforced by a core of steel (ACSR), or aluminum (ACAR); or any other bare stranded aluminum conductor.

ATOMIZED POWDER —Powder produced by blowing or asperating molten metal through an orifice.

CASTING —A product made by pouring molton metal into a mold of a desired shape and letting it harden.

CONDUCTOR REDRAW ROD (CONTINUOUS-CAST OR ROLLED) —A solid round product that is long in relation to cross section, 0.375" or greater in diameter, produced by continuous casting followed by size-rolling, or by rolling from D.C. cast ingot, suitable for drawing into electrical conductor wire.

DIRECT MILL USES —Finished product applications supplied for the most part directly from mills rather than from distributors or jobber warehouses.

DRAWING STOCK (Redraw Rod) —See Conductor or Non Conductor Redraw Rod.

DRAWN TUBE —A hollow product that is long in relation to its cross section, which is round, square, rectangular, hexagonal, octagonal, or elliptical in shape, and brought to final dimensions by drawing.

DROSS AND SKIMMINGS — The mixture of oxides and other impurities which float to the surface of molten aluminum and is skimmed off.

EXTRUDED PIPE AND TUBE — A hollow product formed by extruding that is long in relation to its cross section, which is round, square, rectangular, hexagonal, octagonal, or elliptical in shape.

EXTRUDED ROD AND BAR — A solid product produced by extruding (sometimes brought to final dimensions by drawing) that is long in relation to cross section, which is round, square, rectangular, hexagonal, or octagonal in shape and 0.375" or greater in diameter or in at least one perpendicular distance between parallel faces.

EXTRUSION INGOT (BILLET) — A solid or hollow cast form, usually cylindrical, suitable for extruding.

FLAKED POWDER —Powder consisting of flat or scale-like particles of a thickness small compared with other dimensions, produced by milling in the presence of a lubricant.

EXTRUDED SHAPES —A product produced by extruding, that is long in relation to its cross-sectional dimensions and has a cross section other than that of rod and bar and pipe and tube.

FOIL —A flat rolled product, rectangular in cross section, of thickness less than 0.006".

FORGINGS (EXCLUDING IMPACT EXTRUSIONS) —A product worked to a predetermined shape by one or more processes such as hammering, upsetting, pressing, rolling, etc.

GENERAL LINE DISTRIBUTOR — Warehouses and sells a number of mill products to a wide variety of customers.

IMPACTS (EXCLUDING COLLAPSIBLE TUBES AND CANS) —A product formed in a confining die from metal slug, usually cold, by rapid single stroke application of force through a punch, causing the metal to flow around the punch and/or through an opening in the punch or die.

INTEGRATED PRODUCER (OR SUPPLIER) —For statistical reporting, a company which produces primary aluminum ingot in the United States and produces mill products from it.

METALLURGICAL/DESTRUCTIVE USES —Applications wherein, because of the way it is used, aluminum either loses its identity or is lost and cannot be recovered. Major uses include the deoxidizing or steel and reduction of ferroalloys; steel and other nonferrous metal alloys; steel coating; and such other applications as chemicals and catalysts.

MILL PRODUCTS —Metal that has been fashioned into an intermediate or semifabricated form in preparation for making a finished product. Example: sheet, a mill product, is used to make residential siding, a finished product.

NET SHIPMENTS —Excludes intra-industry shipments for further fabrication. It is the most accurate measure of industry output to markets because it eliminates duplication. Reported receipts of aluminum for further processing are subtracted.

NONCONDUCTOR REDRAW ROD (CONTINUOUS-CAST OR ROLLED) —A solid round product that is long in relation to cross section, 0.376" or greater in diameter, produced by continuous casting followed by size-rolling, or by rolling from D.C. cast ingot, suitable for drawing into nonconductor wire.

NONINTEGRATED FABRICATOR (OR SUPPLIER) —For statistical reporting, a U.S. mill product fabricator which is not affiliated with a domestic primary ingot producer.

OTHER INGOT AND MOLTEN METAL, PRIMARY —For statistical purposes, a cast form other than extrusion ingot (or molten metal), shipped by an integrated producer or nonintegrated fabricator from a company-owned facility not exclusively devoted to producing secondary ingot.

OTHER INGOT AND MOLTEN METAL, SECONDARY — For statistical purposes, a cast form other than extrusion ingot (or molten metal), principally produced from aluminum scrap to specification by secondary smelters (or others at a facility exclusively devoted to producing ingot from scrap for sale); excludes remelt scrap ingot (RSI) which is considered scrap until remelted and cast into specification ingot.

OTHER ROD AND BAR (CONTINUOUS-CAST OR ROLLED) — A solid, round, square, rectangular, hexagonal, or octagonal in shape produced bycontinuous casting or rolling, that is long in relation to cross section, 0.375" or greater in diameter or in at least one perpendicular distance between parallel faces; other than redraw rod and D.C. cast ingot.

PASTE —A blend of powder or flake with a thinner or plasticizer.

PLATE, NONHEAT-TREATABLE —A flat rolled product, rectangular in cross section, 0.250" or greater in thickness, which can be strengthened only by cold work.

PLATE, HEAT-TREATABLE — A flat rolled product, in 2000, 6000, or 7000 alloy series (except 7072), rectangular in cross section, 0.250" or greater in thickness, which can be strengthened by a suitable thermal treatment.

POWDER —An aggregate of discrete particles of aluminum, substantially all of which are finer than 1,000 microns (minus 18 mesh).

RECEIPTS —The metal physically received by a company for further processing.

REIMPORTS —Mill products that have been exported, partially processed outside the United States, and imported back to the United States while still in a mill product stage.

ROLLED STRUCTURAL SHAPES —A structural shape produced by hot rolling.

SCRAP —Includes "New" (prompt industrial) scrap, purchased, imported, or treated on toll, in all forms; and "Old" (post consumer or obsolete) scrap, including sweated pig; also remelt scrap ingot (RSI) which is considered scrap until remelted and cast into specification ingot.

SECONDARY SMELTER — A company whose facilities are exclusively devoted to producing ingot or molten aluminum from scrap.

SEMIFABRICATED PRODUCTS — See Mill Products.

SHEET, NONHEAT-TREATABLE —A rolled product, flat or coiled, rectangular in cross section, of 0.006" thickness but under 0.250" thickness, which can be strengthened only by cold work.

SHEET, HEAT-TREATABLE — A rolled product, in 2000, 6000, or 7000 alloy series (except 7072), flat or coiled, rectangular in cross section, of 0.006" thickness but under 0.250" thickness, which can be strengthened by a suitable thermal treatment.

STATISTICAL ADJUSTMENT — An adjustment made to product shipment data to account for net shipments of aluminum reported by the Bureau of the Census which are believed to be either over- or understated in the amounts indicated due to excessive or insufficient reporting. It also includes otherwise unpublished Census revisions. The addition of the statistical adjustment reconciles the amounts reported by the Bureau of the Census with the net shipments that the Aluminum Association feels are more correct.

WELDED TUBE —A hollow product that is long in relation to its cross section, which is round, square, rectangular, hexagonal, octagonal, or elliptical in shape, produced by forming and seam-welding sheet longitudinally.

WIRE, BARE, CONDUCTOR AND NONCONDUCTOR —A solid wrought product that is long in relation to its cross section, which is square, round, rectangular, hexagonal, or octagonal in shape, whose diameter or greatest perpendicular distance between parallel faces (except for flattened wire) is less than 0.375".

WIRE AND CABLE, INSULATED OR COVERED —Aluminum electrical conductor wire or stranded conductors that are insulated or covered.

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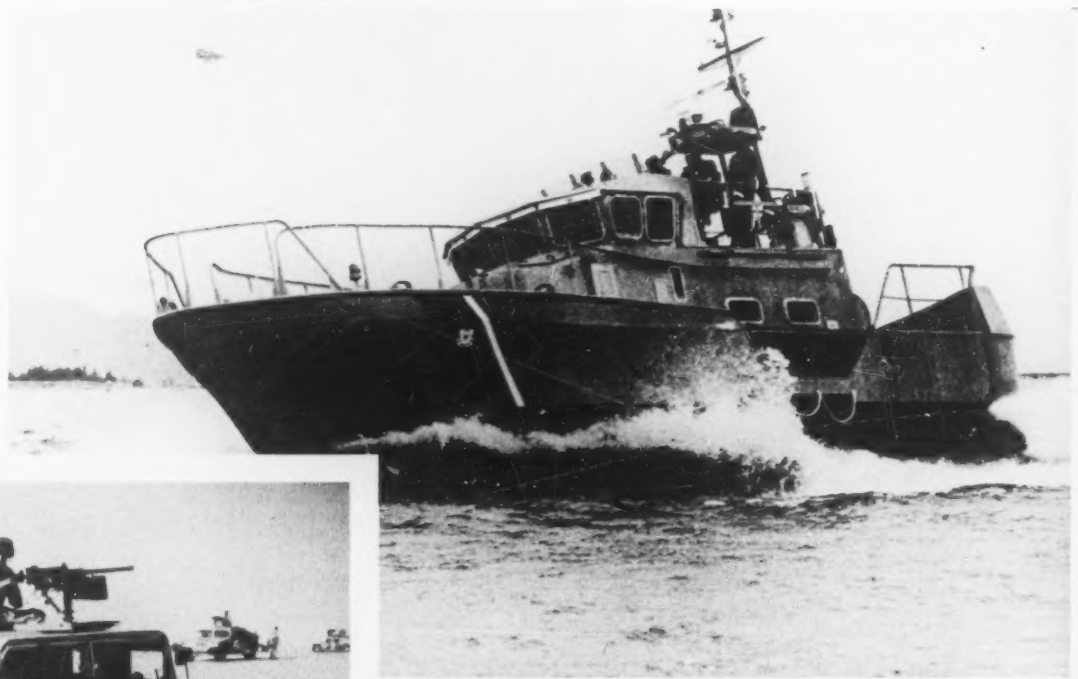

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